The OIL and GAS JOURNAL

PRODUCING REFINING MARKETING

VOL. 23. No. 16-A TULSA, OKLAHOMA, SEPTEMBER 11, 1924

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Crude Oil Production Again Decreases

Average daily production in United States week ended Sept. 6, 2,038,608 bbls. Loss from previous week, 10,317 bbls.

Oklahoma Registers Decline for First Time in Weeks. Cromwell Responsible. Tonkawa Drops Early in Week

Highest daily average estimated production this year, week ended Aug. 23, 2,057,319 bbls. Lowest, January 12, 1,871,143 bbls.

By Andrew M. Rowley

Another substantial decrease in the production of crude petroleum in the fields of the United States was recorded during the past week when the estimated output averaged 10,317 barrels daily less than during the preceding week. Of especial interest is the fact production in Oklahoma, which has been responsible to a great extent for the rapid rise in production recently, showed a loss for the first time in weeks. A majority of the other main producing areas of the country also showed declines during the week, California alone registering a slight increase.

Despite the fact the output of the Tonkawa Field in Oklahoma increased more than 12,000 barrels daily last week, as compared to the week before, Oklahoma as a whole showed a decline of 1,740 barrels daily. The Cromwell Field was mainly responsible for offsetting the increase at Tonkawa, the output of producing wells at Cromwell falling rapidly while the fact only one producer was completed in that field during the week gave the field very little new production to offset the decline from older wells.

Another important development was the fact production of the deep sand wells in the Tonkawa Field early this week showed a falling off of 5,000 barrels daily, the first real decline in output from the deep sand development since the completion of the discovery well several months ago. The real significance of this decrease in production from the prolific deep sand will be known within the near future when other wells drilling to that sand are completed. Completions in that sand have averaged slightly better than 4,000 barrels each, the output of the 20 wells producing from that sand being 81,000 barrels late last week and dropping to about 76,00 barrels early this week. Operators will watch carefully the completion of additional wells in the deep sand to determine what may be expected in the future. Should these wells come in with an initial output much below the 4,000-barrel average, it will be taken as an indication that considerable drainage already has taken place and that the exceptionally high average flush production per well is a thing of the past.

PRODUCTION IN THE UNITED STATES

Estimated daily average production in the oil fields of the United States for the week ended September 6, and a comparison with previous week follows:

	Sept. 6	Aug. 30
Oklahoma—Northern Fields:		
Tonkawa	104,575	92,150
Burbank	72,810	73,950
Other Osage Fields	52,775	54,000
Cushing and Shamrock	23,710	23 800
Br.stow and Eastern Bristow	47,580	46,705
Cromwell	48 300	59 '15
Stroud	18,025	19,745
Northern Miscellaneous	107,200	106,175
Southern Fields	69,875	70,950
Total Oklahoma	544,850	546,590
North Louisiana	53,065	55,005
Arkansas—		
El Dorado and Calion	12,740	12,835
Smackover Light	37,040	37,615
Smackover Heavy	83,130	86,015
Stephens and Nevada	3,780	3,690
Total Arkansas	136 690	140,155
North Central Texas	123,170	123,490
Powell	78,700	78,395
Mexia, Currie, Richland, etc.	54,550	53,585
Kansas	85,200	85,260
Total Mid-Continent Area	1,076,225	1,082,480
Gulf Coast	80,880	81,965
Southwest Texas	42,735	45,265
Eastern	107,975	107,300
Rocky Mountain Area	116,793	119,915
California—		
Santa Fe Springs	56,000	56,000
Long Beach	145,000	148,000
Huntington Beach	40,000	40,000
Torrance	54,000	54,000
Dominguez	31,000	27,000
Remainder of State	288,000	287,000
Total California	614,000	612,000
Total United States	2,038,608	2,048,925

DECREASE, 10,317 BARRELS

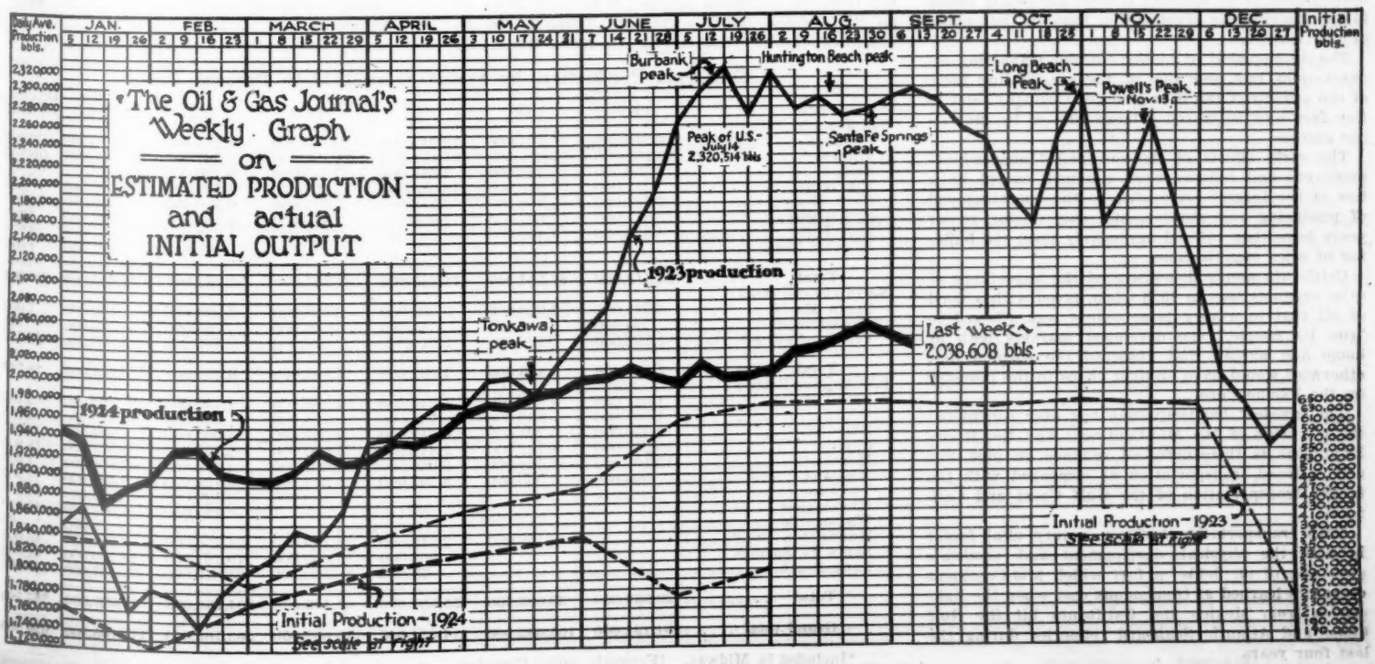
While the production of the Cromwell Field in Oklahoma had declined to a little more than 40,000 barrels early this week, there is considerable drilling activity in that field and the production is expected to show substantial gains when these wells now drilling are completed. In other words, the drop in output at Cromwell at this time is due to the fact completions are at a minimum and the production of wells already completed has been dropping rapidly. With the completion of wells now drilling the output of the field is expected to increase materially.

The decline in production in the fields of Arkansas and Louisiana is continuing, the net loss there last week amounting to 5,455 barrels a day as compared to the previous week. The slackening in development work in Southwest Texas is having its effect also, the output of the Luling Field dropping 2,500 barrels daily last week and averaging 35,000 barrels.

An increase of 4,000 barrels daily in the production of the Dominguez Field in California offset a decline at Long Beach and the output of the whole State averaged 2,000 barrels daily more than during the previous week. Three wells were completed in the field during the week the average output being slightly more than 800 barrels each.

In Colorado, the Midwest Refining Company has completed its No. 1 French on the Iles Dome, about 5 miles southwest of the discovery well of the Transcontinental Oil Company and The Texas Company at Craig, the new completion being estimated as good for 1,500 barrels daily. The Midwest well is the first oil producer completed on the Iles Dome. About a month ago, the T. S. Hogan, The Texas Company and Transcontinental Oil Company's No. 1 State was completed as a dry hole on the Iles Dome but this well was far down on the structure. This well, however, had a small showing of oil in the Dakota sand.

It was reported in Casper, Wyoming, that the Crescent Eagle Oil Company's test on the Crescent Dome, near Thompson, Utah, had struck oil at 3,150 feet and that the well was flowing wild. Scouts immediately started to the scene. Should these reports prove true, development in Utah will receive great impetus. There has been but little drilling activity in Utah for two years following the drilling of several dry holes in that State.



California's Part in Present Situation

Most Reassuring Feature Is the Fact That Pendulum of Light Oil Production Has Started to Swing in the Other Direction

By Charles E. Bowles

A. J. Salisbury drilled the first well in California in 1866-67, only seven years after the Drake well in Pennsylvania.

The well is now the property of the Union Oil Company of California, is known as No. 6 Ojai, and is located in Ventura County. It was not only the first oil well drilled in California, but the first oil well drilled west of the Mississippi River.

The birth of the oil industry on the Pacific Coast is due to the efforts of Thomas A. Scott, Assistant Secretary of War in President Lincoln's cabinet. Not, however, until 1876 did California produce enough oil to receive separate mention by the United States Geological Survey—but in the intervening 48 years the State has produced a grand total of 1,867,000,000 barrels of oil—more oil than has been produced by any other single State in the United States—and slightly more than one-fourth of all of the oil that this country has produced.

We have been making automobiles in the United States for about 29 years. In the first 25 years we made a few more than 10,000,000—the next four years we made 10,000,000.

We have been producing crude oil in the United States for 65 years. In the first 56 years we produced about half of all of our oil—the next nine years we produced the other half.

California has been producing crude oil for 48 years. In the last seven years she has produced more oil than in the previous 41 years.

Sales Limits

By a strange coincidence the ratio—six to one—applies in each of the above production comparisons. And one wonders if this marvelous momentum can be kept up during the next 10 or 20 years. The answer will probably not be found either in the productive efficiency of automobile factories or in the prolific outpouring of rich oil fields that are today undiscovered. The answer will very probably be found in the sales organizations of the automobile and oil industries.

In other words, the factor limiting the rate of development of an industry is more frequently found in the distributing organization than in the supply of raw material.

The development of highly efficient marketing organizations has been one of the outstanding facts of the growth of the Standard Oil Company, and to this fact may be traced a large part of its marvelous success.

The early efforts of the so-called "Independent" producers and refiners were confined, except by a few of the largest companies, to the operating end of producing and refining, and only during recent years have they entered agressively upon the building of sales organizations.

California amply demonstrated the importance of sales organizations in 1923 when, faced with a flood of oil that to a very large extent was allowed to "run its course," she developed markets both at home and abroad that absorbed the surplus that otherwise would have brought chaos to the industry on the Pacific Coast.

The greatest handicap that has ever confronted the oil fields of the Mid-Continent and the Rocky Mountains is their enforced reliance on pipe line and railroad transportation as compared with the tanker transportation of the Gulf Coast and California.

Thus transportation becomes a very vital factor in both the physical development and economic operation of oil fields—a fact which Mid-Continent operators learned at tremendous cost when the light crudes from Mexico and California hit the Gulf Coast and Atlantic Seaboard refineries during the last four years.

When the flood of light oil from the new Los Angels Basin fields started, the latter part of 1922, the low gravity fields in the San Joaquin Valley were slowly shut down as will be seen by referring to the accompanying table.

With the exception of the new Elk Hills Field which came in the latter part of 1919, all of the other San Joaquin Valley fields showed a very regular decline during the four-year period. The effect of the shut down is most apparent in the Coalinga Field which dropped from 16,000,000 barrels in 1919 to 5,000,000 in 1923. The first six months of 1924 Coalinga produced more oil than during the entire year 1923.

Midway-Sunset declined very slowly, from over 32,000,0000 in 1919 to about 28,000,000 in 1923, and in the first half of 1924 produced almost 18,000,000 barrels, or at a rate, for the entire year, of 3,000,000 barrels more than it produced in 1919.

The Elk Hills Field includes "Naval Oil Reserve No. 1." leased by Mr. Doheny"s company. It is today producing at the rate of over 13,000,000 barrels a year, or more than for either 1923 or 1922.

Kern River, McKittrick and Lost Hills are as fine examples of consistent decline as it is possible to find, the production rate for the first half of 1924 checking closely with the production for the year 1923.

Estimating 1924

Taking into account the big flush production from Elk Hills in 1921, the production from the entire San Joaquin Valley has declined so consistently that, aside from the ever-present possibility of new fields, its future production can be estimated with reasonable certainty.

The year 1924 is so far spent that even though a new field were found, the production from the San Joaquin Valley fields can be conservatively estimated at about 70,000,000 barrels.

With few exceptions the oil from all of the San Joaquin Valley fields can be roughly classified as "low gravity"—and, with equally few exceptions, the oil from Santa Maria—Lompoc, Summerland, Ventura-Newhall and the Los Angeles Basin can be roughly classified as "high gravity."

Some idea of the variation in gravity can be gotten from the following figures: McKittrick from 12 to 21 degrees Baume—Coalinga from 12 to 35—Midway-Sunset from 11 to 30—Kern River, all below 17—Lost Hills from 14 to 38—Santa Maria from 11 to 37—Summerland from 12 to 16—Ventura-Newhall from 11 to 56—Whittier-Fullerton from 14 to 35—Salt Lake from 12 to 19. Huntington Beach, Long Beach and Santa Fe Springs are essentially high gravity fields from which 25 to 30 per cent gasoline can be obtained.

In using the figures of the United States Bureau of Mines for the refinery throughput and gasoline recovery for the eight different areas into which the bureau divides the United States, one must bear in mind, that the qualities of the crudes run to stills varies widely in the different areas. For example, the Atlantic Seaboard refineries run crudes that vary all the way from "gasolineless" Mexican crude to the very highest gravity Tonkawa crude from which 75 per cent gasoline can be recovered by fractionation and cracking.

Crudes Run to Stills

The crudes run to stills in Atlantic Seaboard and Gulf Coast refineries are probably, from this viewpoint, more "complex" than the crudes handled in any other areas in the United States. The crudes handled in the Appalachian area are produced either there or pipelined from the Mid-Continent. The Mid-Continent refineries operate practically entirely on their own crudes. This is also true of the Rocky Mountain area refineries and the Pacific Coast refineries.

It is therefore interesting to note that in 1923 the Atlantic Seaboard refineries recovered 27 per cent gasoline from the total crude run to stills—the Appalachian refineries recovered 42 per cent—the Mid-Continent refineries slightly over 35 per cent—Texas, which refined much more of her own high gravity oils than of her low gravity oils plus heavy crudes from Mexico, averaged only 27 per cent—the Rocky Mountain area recovered 45 per cent—California 20 per cent.

Per Cent of Recovery

Tabulating these recoveries we have—

	Per Cent
Atlantic Seaboard	27
Appalachian	42
Mid-Continent	35
Texas	27
Rocky Mountain	45
California	20

(Continued on Page 88)

California Production, by Fields, from 1919 to Present Time

Field:	1919	1920	1921	1922	1923	6 Mos. 1924	Dy. Prod. Jul. 1, '24
San Joaquin Valley:							
Coalinga	16,386,000	15,464,000	12,341,000	9,159,000	5,211,000	5,345,000	32,900
Midway	26,133,000	25,217,000	24,172,000	24,152,000	22,567,000	17,855,000	108,200
Sunset	5,590,000	5,424,000	4,614,000	5,543,000	5,236,000	*	*
Elk Hills	281,000	7,276,000	18,085,000	11,891,000	8,174,000	6,366,000	38,900
Kern River	7,563,000	7,456,000	6,716,000	7,317,000	6,816,000	3,425,000	18,700
McKittrick	2,811,000	2,607,000	2,056,000	2,417,000	2,192,000	1,042,000	5,600
Lost Hills	4,555,000	4,140,000	3,261,000	2,815,000	1,843,000	657,000	4,700
Wheeler Ridge					128,000	161,000	1,000
Total	63,319,000	67,584,000	71,245,000	63,294,000	52,167,000	34,851,000	210,000
North Coastal Area:							
Santa Maria	6,031,000	5,928,000	5,563,000	3,798,000	3,004,000	1,432,000	7,900
Summerland	54,000	55,000	54,000	48,000	53,000	26,000	140
Ventura-Newhall	1,792,000	2,122,000	2,375,000	3,016,000	3,702,000	1,869,000	10,700
Total	7,877,000	8,105,000	7,992,000	6,862,000	6,759,000	3,327,000	18,740
Los Angeles Basin:							
Salt Lake	1,341,000	1,311,000	1,345,000	1,258,000	1,192,000	490,000	2,700
Whittier	1,001,000	842,000	735,000	718,000	645,000	370,000	2,000
Fullerton	4,350,000	5,391,000	6,013,000	4,513,000	4,065,000	1,994,000	11,700
Coyote	10,240,000	8,732,000	7,419,000	7,000,000	2,448,000	1,973,000	18,800
Montebello	12,101,000	11,124,000	9,066,000	6,692,000	4,076,000	3,108,000	1,670
Richland	965,000	2,565,000	8,207,000	8,314,000	6,121,000	2,329,000	11,900
Torrance				190,000	3,129,000	8,085,000	57,200
†Dominguez					157,000	1,027,000	10,200
Watsonville						10,000	60
Huntington Beach		38,000	2,519,000	11,169,000	34,356,000	9,884,000	46,000
Santa Fe Springs			208,000	11,032,000	79,781,000	16,190,000	61,000
Long Beach			75,000	18,560,000	68,810,000	34,467,000	159,500
Total	29,008,000	30,003,000	35,587,000	60,446,000	204,780,000	79,927,000	397,700
Grand total	101,194,000	105,692,000	114,824,000	139,602,000	263,706,000	118,105,000	626,500

*Included in Midway. †Formerly called Compton.

Scenic Beauty in Western Oil Fields

Colorado and Western Kansas Towns Near Prospective Producing Area Differ Considerably From Old "Boom" Type

By C. D. Lockwood

"A Study in Contrasts—Western Kansas, Fort Collins and Craig," presented in pictorial form on pages 24 and 25 of this issue is the story of a trip taken by the writer during August, and a part of which was mentioned in an article on Colorado published in these columns last week. The route of travel included Russell in western Kansas, Denver, Craig, Boulder, Fort Collins and Pueblo, in Colorado, and thence back through Syracuse, Kans., near the Colorado line, where the Wood Oil Company is drilling the most important test now under way in the Sunflower State.

The photographs that have aroused the most interest among those persons among the writer's acquaintance who have never visited this area, have been the pictures of the towns referred to. Derricks look just about the same the world over and everybody is more or less familiar with mountain scenery through the untiring efforts of the railroads and the tourist bureaus, but for some reason the general impression of a new oil town seems to be a collection of shacks on a prairie giving the appearance of having been swept up in a violent storm.

There is a feeling that good farming country and good oil structures are somehow incompatible, even though there are numerous fields that serve as evidence to the contrary. Facts concerning a new oil town should not be difficult to obtain as most of them have Commercial Clubs and Rotarys and Chambers of Commerce, but still many good substantial citizens who have not seen Fort Collins or Russell, with their own eyes express surprise that it is such a beautiful place—and so much larger than they had supposed. Russell, Kans., they had presumed, was just a jumping off place which would resume its discussion of the price of hogs and the severity of the coming winter when the oil boom fizzled out.

Substantial Community

When the Union Pacific had negotiated some 260 miles after leaving the stockyards of Kansas City behind, however, we found a substantial and prosperous looking community of nearly 2,000 souls that seemed to be little affected by the exodus of lease grafters. Not a one of these worthy gentlemen had remained to greet our arrival, thanks to the generosity of the Russell citizens who advanced the price of a one-way ticket to Tulsa to several of the gentry, and yet the town seemed to be weathering the blow nicely and was scheduled to recover soon. In the parlance of the industry, the "fire was out" at Russell and the embers would glow but feebly until some wildcat unexpectedly struck another pay sand. Several scouts and lease men for the larger companies interested in the area were still on the job, and a few individual operators still maintained headquarters at Hotel Russell but the inquiries about the Fairchild and the Haise and the Garfield-Buel and other wildcats for which there was still a ray of hope seemed to be listless. Acreage that was once valuable for trading purposes could be had for a song and much of it had been released through inability of the brokers either to sell it or hold it.

But Russell itself has been little affected by this deplorable condition of affairs. A new theater, creditable for a town twice its size, has just been opened and the crops were excellent this year, so the people as a whole will worry along about as they have for many years before the Lucky Seven started their original wildcat.

Geological Features

The size of some hills in Russell County and the standardized appearance of the farmhouses were the two characteristics that made the greatest impression as we drove from one end of the county to the other in search of wildcats. Occasionally a mirage in the road ahead, or a prairie dog town in an adjoining field would divert our attention but for the greater part of the time, we speculated on the proportions of some uplifts which would not feel ashamed of themselves in the Cromwell Field of Oklahoma. Outcrops of the Dakota sandstone were positively rugged in places and some of the grades were much too much for our Ford roadster in high.

Generalized Chart Showing Stratigraphy in Northwestern Colorado

PERIOD	SYMBOL	FORMATION	THICKNESS
Present		River & Lake deposits	0 – 200
Pleistocene		Glacial drift / Blanco Mt. conglomerate	0 – 50
Pliocene		Brown's Park Unconformity	0 – 400
Miocene & Oligocene		Lava Flows	0 - 1,000
Eocene		Lava Flows	0 - 1,000
		Bridger Form	1,200-2,000
		Green River formation	2,000-3,000
		Wasatch	3,000-4,000
		Ft Union	1,000-1,500
(Specimen depths to the Dakota sand shown below)		Laramie	2,900
		Lewis	1,000-1,200
Cretaceous		20 Mile sandstone; Williams Fork member; Trout Creek; Coal-bearing group; Tow Creek; Iles Formation (MESA VERDE)	2,950-3,500
		Morapos Sand	
		Mancos shale	4,500-5,300
		DAKOTA	150
Jurassic		Flaming Gorge White Cliff or Nugget	1,500-1,800
		Vermillion Cliff	500-800
Triassic		Shinarump Conglomerate	1,000
		Moenkopi	200
Pennsylvanian		Park City formation -quartzite	2,500
Mississippian		Millsap Unconformity	1,000
Algonkian		Uinta	12,000

Wilson Creek Dome - Rio Blanco Co. - 11,500 Ft.
Morland Mol Scott - Rio Blanco Co. - 0 Ft.
Iles Dome - Moffat County - 2,600 Ft.
Hamilton Dome - discovery - 3,800 Ft.
Beaver Creek - Routt Co. - 3,250 Ft.

Black rectangles indicate possible oil-bearing formations

The Pouder & Pomeroy wildcat and one or two others are located on the edges of real bluffs.

The photographs of Russell Field, or Oswald Field, as it is sometimes termed locally, is deceptive in a way. The field appears as flat as a pancake while in reality it is located on a gently sloping hill.

The standardization of buildings has resulted from natural causes, chief among which is the material. Nearly all construction is of the post lime which underlies the whole country and forms a marker for the geologist. The yellow color gives the buildings a similarity that suggest an oil field camp erected by a large company, although some imagination is required to visualize such a comparison as the designs are far from uniform.

Our observations regarding the hills in western Kansas were those formed before crossing the Continental Divide and skirting the precipitous cliffs necessary to reach the fields in Moffat County on Colorado's western slope. After several days of riding around Craig, the gentle inclines of Russell County faded from our memory.

The drive from Denver to Fort Collins, about 60 miles, may be made over several different routes, all of which are equally interesting and enjoyable. Loveland and Longmont are both beautiful little towns and both may be centers of active drilling if the tests now drilling near them are successful. Boulder is a delightful old school town and is the home of the State Geological Survey. Fort Collins, however, is the most delightful of all with its broad streets and green parkings that are kept in better shape than most private lawns. The street car tracks are hardly visible except where they cross the pavement and the cars themselves are painted and kept in better shape than in most western towns. The business section is well laid out and the whole appearance of the town is such as to impress the most blase visitor.

Business Picks Up

The pictures of Craig and the budding town of Hamilton just about tell their own story. The latter formerly consisted of the store on the right of the photograph but when oil was discovered on the Hamilton Dome about 2 miles away, business began to pick up and now there is a pool hall, lunch room, and about 200 population on the books, although that number of persons was not in evidence. Other buildings were in coure of erection and prosperity seems bound that way if the oil holds out.

Very few oil men have entered Pueblo as yet, only a few local companies maintaining offices as such. The Ohio Oil Company representatives maintain headquarters there but they are alone so far as large companies are concerned. Pueblo is not a particularly inspiring town as compared with Fort Collins, nor does it have the wild western appeal of Craig. That will have little effect on its oil future, however, and the completion of a well will start a flock of oil men that way.

The next development of importance in Colorado is scheduled to take place on the Iles Dome, about 5 miles southwest of the Hamilton Dome discovery well, where the Midwest Refining Company has been carefully proceeding toward the Dakota sand carrying a hole full of shale oil which slopped over occasionally and made several good flows. The objective sandstone was expected at 2,630 feet and with good luck that depth should be attained almost any time. Ticker dope and various sources of misinformation have completed the well as a satisfactory gusher on numerous occasions, but such completions fail to arouse much enthusiasm from the builders of pipe lines.

Importance of Test

As stated in these columns last week, gusher production at this location which is in Section 22-4n-92w, southern Moffat County, will go a long way toward rejuvenating the future prospects of that

(Continued on Page 110)

Natural Gasolines Higher in Oklahoma

All Grades Advance 1-4 Cent. Straight Run Gasolines Slow Up. Kerosenes and Fuel Oils Continue Strong

By C. O. Willson

After a three week's period of advancing prices applying to all the light oils, including fuel oils, the Group 3 (Oklahoma) refined market was relatively quiet during the past week. The only products which continued to advance were natural gasolines. Orders for September delivery placed last month or the first few days of this month apparently have taken care of the current output of natural gasoline and material for spot shipment is so scarce that sellers have had no difficulty in advancing their prices. The general advance on all grades for the week was ¼-cent.

Developments for the week in the straight run gasolines were not so favorable from the sellers' standpoint. Optimistic predictions as outlined in these columns last week to date have not been sustained. Before the close of last week it was apparent that the refinery gasoline market had lost some of the strength which during August brought the U. S. Motor (New Navy) market from a low of 7¼ cents to a low of 8 cents for the beginning of September. The last advance of ¼-cent made about September 1 by a majority of the Oklahoma refiners was apparently the action which stopped the steady buying which had been directly responsible for the favorable market developments of August.

Effects of Advance

When U. S. Motor (58-60) was advanced to a price level of 8 to 8¼ cents from 7¾ to 8 cents, it was expected that it would slow up new buying for a few days. As a matter of fact, however, the demand for the first few days was heavier than it has been since. Resale agents quickly got out of the market and disposed of material they bought in August under 8 cents. Many jobbers who had been buying regularly also reduced their purchases or withdrew from the market entirely. This was not true in all cases as several major jobbers of the Middle West with very little gasoline in stock have been buying heavily at 8 cents and a few at least have purchased from their refiners at 8¼ cents.

However, the volume of this buying has unquestionably not come up to the expectation of sellers in many instances and beginning first of the week a few plants began selling at 7¾ cents for immediate shipments. Up to this writing a majority of the refiners have not changed their resale price, although the price to the trade is now generally 8 cents. It is possible that the Oklahoma market on U. S. Motor 58-60 would have remained firm for several days yet if it had not been for some low priced competition in North Texas. Several refiners in that section, due to a slump in demand, lowered their price below the 8-cent level early last week and it was quoted freely at 7¾ cents basis Group 3 the first of the week.

Up to this writing (Tuesday) the price weakness in straight run gasolines was practically confined to the one grade. Largely the same situation in regard to the demand for the higher gravities applied but refiners had not reduced their prices. The same condition applied to naphthas.

Why Jobbers Held Back

Several explanations are offered as to why jobbers have failed to buy during the past week or 10 days. Rumors still persist that refiners outside the Mid-Continent area have been under selling Oklahoma plants during the past two weeks. It is known that Gulf Coast plants have taken certain export business from Mid-Continent plants but it is reasonably certain, despite the persistent bearish rumors, that these concerns and those located in other sections of the country have not entered into the domestic market of the Middle West to any great extent. It is a development which it is conceded might materialize at any time and to that extent at least it has tended to keep gasoline prices down.

An explanation offered by many of the trade as to why jobbers are out of the market has to do with the expectation of lower crude and tank wagon prices. Representatives of refining organizations who keep in touch with the consuming area of the Middle West state that they find jobbers everywhere expressing confidence that crude prices will come down in the near future and along with it a general revision downward of gasoline tank wagon and service station prices. Due to this fact there was no disposition to change the "hand to mouth" buying policy even when gasoline prices advanced in August.

Operating on Low Stocks

Credit for this feeling on the part of jobbers is given to the National Petroleum Marketers Association which officially has maintained a bearish attitude toward market developments for several months. One Oklahoma refiner in close touch with jobbing conditions states that it is remarkable with what low stocks many of the jobbing organizations are operating. This authority states that he would welcome an immediate change in the crude and tank wagon prices if they are to be made this fall as he believes the expectation of the reduction is a more bearish factor in the market than an actual reduction would be. He predicts heavy buying on the part of the jobbers as soon as they are satisfied that the crude and tank wagon prices will not go lower. Reflecting the unsettled tank wagon situation there has been another flood of "price wars" in the tank wagon markets of the Middle West. Gasoline is retailing at many points at less than the tank car price plus freight. It is said that substantial jobbing interests are in some cases responsible for this condition. These jobbers, it is said, have determined to take losses the remainder of the year if necessary, in order to drive out new competition which has come in during the year and has been responsible for the low price levels.

Bureau of Mines Report

Considerable interest was manifested during the week in the July report of the Bureau of Mines. The report is proof of the statement that from the standpoint of a favorable relationship between supply and demand, July was by far the best month of the year. For the first time this year the percentage of increase in gasoline consumption, including imports, was greater than the increase of production including exports when compared to the same month of last year. The total increase in consumption was 16.3 per cent over domestic consumption plus exports in July of last year while the production, including imports, was 13.7 per cent greater.

As a result of this situation, gasoline stocks were reduced 132,299,280 gallons, the largest monthly reduction in the history of the industry. August reports are not available but it is probable that the total reduction during the month was even greater than during July. The fact that gasoline prices strengthened during August would indicate that development. But even granting a reduction of 150,000,000 gallons in August, it is apparent that the refining industry opened September with more material on hand than is needed for healthy market over the fall and winter months. It should be kept in mind that despite the favorable month of July, the gasoline industry is still suffering from too much operating activity early in the year.

First Seven Months

For the first seven months of the year gasoline consumption, including exports, totaled 4,819,669,956, an increase of 16 per cent over the 4,158,410,000-gallon figure for the first seven months of last year. But this increase in consumption was more than offset with a production of 5,211,326,679 gallons of gasoline, including imports which was 17.3 per cent greater than the total production of 4,440,146,000 gallons the first seven months of last year. This relative situation in regard to supply and demand accounts for the fact that on August, last, there was 391,656,723 gallons more gasoline in storage than on January 1. In brief, the July report cannot be considered more than a step in the right direction with the gasoline situation still demanding conservative operation if the statistical position of the industry is to be brought back to a strong position by the first of the year.

The July report does not include any developments of particular significance in regard to other products. Kerosene stocks increase slightly, but this also occurred in July of 1923 and 1922. Fuel and gas oil stocks declined approximately 15,000,000 gallons from the peak point of June. This is a favorable development when it is considered that due to a seasonal situation fuel and gas oil stocks generally increase in July. The increase in July of last year was approximately 75,000,000 gallons.

Gasolines and Naphtha

Cosden & Co. and practically all of the larger companies had not reduced their prices on gasolines up to Tuesday. Cosden & Co., it is understood, are still making deliveries on business placed before the last ¼-cent advance. This company, in an official bulletin, stated that August shipments were the greatest in the history of the company. The company shipped more than 29,000,000 gallons of gasoline resulting in a reduction of gasoline stocks of 13,000,000 gallons. In this connection it is significant that the total reduction in gasoline stocks for the Mid-Continent area the first 15 days of August was approximately 9,000,000 according to the Western Petroleum Refiners Association's weekly report which was discontinued the middle of August. It is thus apparent that the lowering of Cosden's gasoline stocks accounts for practically all of the stock reduction in the Mid-Continent Field during August for the plants whose operations were covered by the Western Petroleum Refiners Association's report. Other companies have reduced their stocks but these reductions have been largely offset in increases from other companies.

It is known that Cosden & Co. still have considerable gasoline in storage and it is generally expected the company will reduce its prices to whatever level is necessary to move them. There is less complaint about slow deliveries with more and more companies in a position to make immediate delivery.

In the higher gravities the low on 60-62, 400 was 9 cents, 9½ cents on 64-68, 375 with a 10¼ to 10½ cents price prevailing on 68-70, 350-365. Buyers are endeavoring to shade these prices due to the weakness in the U. S. Motor grades and it is possible that in a few instances they have been successful.

Kerosene and Distillate

Kerosene and distillate prices are no higher than they were a week ago and it is also as difficult to secure immediate shipment on any grades. The price position of both products has been aided in Oklahoma and the Mid-Continent generally by advances in other sections of the country.

Several refiners the first of September began to make deliveries on their distillate contracts which extend to next spring. In addition there has been

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REFINED MARKET BAROMETER

Kerosenes and fuel distillates displayed the greatest strength of any of the refined products during the past week for the entire United States. Prices advanced in some areas and strength was apparent in all sections due in part to the fact that the fall consumption of distillates has started in the Northern sections. There is also a strong demand for kerosenes in the agricultural sections coupled with a heavy exportation. Straight run gasolines have slumped slightly in the Mid-Continent with little change in other sections. Natural gasolines continue strong in the Mid-Continent with lower prices prevailing in California. Fuel and gas oils are generally strong with no important price changes in any section. Higher prices for cylinder stocks in Pennsylvania following an increased demand from industrial users featured the week's developments in lubricating oils. Wax is strong in all areas.

Mid-Continent—Demand for straight run gasolines has fallen off and prices on some grades are slightly lower in Oklahoma and North Texas. Natural gasolines continue strong with prices higher in all sections on spot business. Kerosenes and distillates strong with only minor changes in prices. A few sales of fuel oils were made at lower prices but general price levels are unchanged. Movement of lubricating oils was fair with no changes in price. Wax strong.

Atlantic Seaboard—Gasolines continue weak despite heavy consumption. Heavy exportation of kerosene aiding market. Fuel oils strong due to increase in consumption and difficulty experienced in obtaining grades of desired quality. Falling off in total export movement from New York. Fear expressed that political situation in China will interfere with export movement to that country.

California—No change in gasolines except natural gasolines prices are slightly lower following the recent heavy buying. Export kerosene prices higher with no change in domestic market. Improvement in demand for fuel distillates resulting in higher prices on some grades. Fuel oil strong. Lubricating oils steady.

Gulf Coast—Good demand for winter lubricating stocks and prices are firm. No change in fuel and gas oil prices.

Pennsylvania—Strong demand and higher prices for cylinder stocks features market. Prices on all grades of kerosene are also from ¼-cent to ½-cent higher. Higher gravity gasolines higher. Advances believed to reflect recent advances in Mid-Continent Field.

Chicago—Gasoline market unsettled with lowered prices expected unless demand improves. Kerosene demand fair with no price changes. Fuel oil firm. Price wars bringing reductions in tank wagon market.

Over-Competition in Gasoline Sale

Multiplication of Filling Stations and Pumps Big Factor in the Demoralization of the Oil Business at Present Time

By N. O. Fanning

NEW YORK, Sept. 8.—One phase of the overproduction of gasoline that is worrying leaders in the oil industry considerably is the over-expansion of gasoline marketing facilities throughout the country. Nowhere is this over-expansion more in evidence than on the Atlantic Seaboard, in Pennsylvania, New Jersey, New York and most of New England.

The direct cause of this condition is said to be large offerings of gasoline at a sacrifice by refiners who are unable to find a profitable outlet for their production. These offerings are being taken advantage of by jobbers and others who set up service stations or pumps and offer the product in competition with each other and with oil companies.

There has been marked expansion of gasoline marketing facilities by the oil companies themselves. It is pointed out that this expansion is in line with programs laid out last winter based on the expected increase in gasoline consumption, but the flood of service stations and pumps, put up by those who look for quick profits from the sale of cheap gasoline has induced additional competition by the oil companies in sheer self defense.

The result is that according to reliable estimates there are twice as many gasoline stations or pump and tank outfits in existence as are actually needed to supply the demands of motorists. In some sections the facilities are estimated to be five or six times actual requirements.

It is plain in view of these facts, which are patent to the average motorist as well as to the experienced oil man, that millions of dollars will be lost before the orgy of expansion in gasoline marketing facilities has run its course. Without question many service station operators are losing money, and the question is as to how long they can continue to operate.

Will React on Industry

While the majority of oil companies have through conservative policies protected themselves against loss in this end of the business, the failure of numerous service station operators throughout the country, together with those refiners supplying gasoline presumably at a loss, is expected to react unfavorably on the oil industry, inasmuch as many of these will doubtless complain that the industry is responsible for their losses. These complaints will be capitalized by the type of politician always eager to seize on any pretext to boost his vote.

However, in this case, the motorist is one of the chief objectors to the excess of marketing facilities, and he realizes that it is not due originally to the oil business. That conclusion is evident from what is said here and there by motorists themselves who have taken trips through the various States either on their vacations or on business.

One motorist told the writer that he was warned in a small city that gasoline was being diluted with water, and as if to bear out his contention, an automobile which had been running on this so-called gasoline appeared towed into town in a helpless condition, because of the fact.

Nevertheless, the condition in the gasoline business now is admitted to constitute a menace to the industry because some motorists will put the blame for it on the shoulders of the oil industry itself, not appreciating the impossibility of controlling crude oil production. For this very reason the oil business is urged by many leaders in the oil industry to keep the facts before the public instead of waiting for open attacks on the industry, based on misrepresentation of the facts.

The objection to over-expansion of marketing facilities is not in ignorance of the certainty of increased demand for such facilities from year to year. The chief objection lies in the dangers attendant upon too much competition, without any check whatever.

As matters stand now, the oil industry sees a drop in production as the only chance of relief in the situation, but even if output were to decline now it would be months before it could be of any help.

One method of checking the competition which has been suggested, is that cities or States take the matter in hand and establish a standard for service stations which those wishing to engage in retailing gasoline would be forced to follow. The points in favor of this include improved appearances that would follow the enforcement of such a rule, and in improved service to the motorists. It is believed that the majority of oil companies would be glad to follow a practical and reasonable standard, which, although probably entailing a larger expense, would under the circumstances constitute a more permanent investment. On the other hand, objections will always be raised against anything which hints of regulation or control of private enterprise.

The rate at which the automobile, motor truck and the motor bus is increasing in numbers is taken by oil leaders as a mandate that something must be done at once to provide adequate accommodations for the supplying of gasoline which will insure the operators of these motor vehicles good service and assure them obtaining a good grade of fuel. This, it is realized, represents one of the big problems of the present, just as does that of the improvement of highways to take care of this motor traffic.

Unless the oil industry can do something to contribute toward the improvement of gasoline marketing facilities, political bodies may act without the restrictions which are always placed upon private enterprises.

Variations in Gasoline Prices

One outstanding result of the over-keen competition in gasoline marketing is the wide variance in retail prices throughout the country. Gasoline can be obtained in New York City on a retail basis for from 17 cents to 22 cents per gallon, although 22 cents is the usual price. A traveler by automobile through any of the eastern States can buy gasoline at even a wider range of prices. The variation in prices is not between widely separated areas, but often between adjoining service stations. The same advertised brand of gasoline can be bought at different prices at stations within a short distance from each other.

The motorist, who is glad to obtain gasoline more cheaply because of competition, at the same time cannot understand how the product can be sold at different prices at adjoining stations and in different parts of a given territory. The service station owner is seldom able to give a satisfactory answer, or often the tendency is to blame it on "Standard Oil" or somebody else, no matter who, in an effort to shift responsibility.

The price factor reacts unfavorably upon the oil business, in that oil companies are forced to sell gasoline at prices out of line with the cost of manufacture or the cost of crude oil. The companies depending chiefly upon the sale of gasoline are the chief sufferers, but the situation is bound to unfavorably affect all companies sooner or later unless remedied.

Responsible to Public

The fact cannot be lost sight of, oil men point out, that every gallon of gasoline comes from crude oil originally, and therefore the situation as effecting gasoline prices and marketing practices will sooner or later be laid down at the feet of the oil industry itself. It is, therefore, the place of the oil industry to take steps to improve the situation if it possibly can. It does not matter that the situation may not be the result of any action on the part of representative units in the oil business.

The public, and therefore the political, angle of the oil situation lies in the manufacture and sale of gasoline. Political ire is seldom, if ever, levied upon the business as it applies to other petroleum products. The reason for this is natural. The representative American now directly buys gasoline, paying for it personally out of his own pocket, and he, therefore, comes into personal contact with and knows the oil industry largely in that way.

In supplying gasoline to the public the oil industry as a whole has a direct responsibility, although it may not actually be responsible for certain practices, and certainly is not as a whole responsible for present conditions in the business of retailing gasoline.

With a big political campaign under way and attacks, however unjustified, against the oil industry an almost certainty when the next Congress is in session, oil men feel, that steps must be taken immediately to cope with the evil of over-competition in this branch of the business.

CANADIAN VISITOR TO SUNBURST DESCRIBES OPERATIONS IN FIELD

By Victor Lauriston

CHATHAM, Ont., Sept. 6.—A Canadian visitor who last week went through the Sunburst Field writes thus from Sweetgrass, Montana:

"We were surprised at the magnitude of operations, as it has been reported that work was practically at a standstill. But upon investigation it was found that every well completed is pumping oil into the field tanks, and the pumpers say that the wells are yielding steadily. While some are better than others, even the light wells are pumped at regular hours during the 24. Baker No. 3 has a settled production the same as the Homestake-Howling No. 3, now 400 bbls. during a 24-hour pumping.

"There are now 182 producing wells in the field with practically every one on the pump. There are 16 producing gas wells, and 31 new wells drilling, with 18 new rigs going up. The average daily pipe line runs are 5,400 bbls., while the total production of the field to date runs well above 1,000,000 bbls. The average gravity of the oil runs about 34 degrees Baume. The average drilling depth of wells is about 1,500 feet, and the approximate drilling cost per well runs from $8,000 to $10,000.

Recent Completions.

"Some of the record breaking wells have come into production near the Shoshone No. 4. This came into production on July 15, and is reported to have topped all oil wells in the northwest with a record production of 12,000 bbls. the second day it flowed, while the settled flow is very heavy compared with the average well in the field. In this area the Shoshone-Storm came in May 5, 1923, rated at a 125-bbl. well; Sweetgrass-Sunburst No. 1 Norena struck oil July 2, 1923, and brought in a 150-bbl. producer, with a settled production of about 400 bbls. daily. The Van Meer-Storm No. 1 registered about 3,000 bbls. production on May 11, 1924, but later incursion of water practically ruined production at this well, only a small amount of oil being taken from the settling tank since it is said. Queen City-Moore No. 2 struck a 900-bbl. producer on July 1 of this year while Shoshone-Storm No. 5 came in a week ago at a depth of 1,570 feet in the Ellis sand, and is credited with flowing approximately 75 bbls. per hour since that time, and is now estimated to be second to the great Shoshone gusher in settled production.

"The Crumley-McKnight No. 4 located in NE SW 4-34-2w, came in at 1,490 feet in the Ellis formation, and is said to be good for about 300 bbls. initial production with a settled production of about 175 bbls. The oil has a good pressure and has shot over the derrick repeatedly. The most interesting test of the field at present, the Potlach-Adams No. 1 deep test, has cleared the hole of lost and broken tools and started drilling once more. Strong gas pressure has sprayed a stream of water over the derrick several times, and there is some showing of oil at present.

"Two abandonments have taken place during the past week, the Ohio-Barr No. 2, which has been a gasser, blew in as an oil well recently and a test was made, but proved less than a 25-bbl. well, consequently the pipe has been pulled and the well abandoned. The Homestake-Whitman No. 1 has proven to be a very light well and pumping has been discontinued; and if later tests prove the same it will be abandoned. The casing has been drawn from the famous Boyce water gusher in the north end of the field and that well abandoned entirely.

"The Beaupre well is still at work rigging up for the most northerly test in the Sunburst Field, about 7½ miles south of the boundary road. Its location is in 21-37-1w.

Expect Good Well.

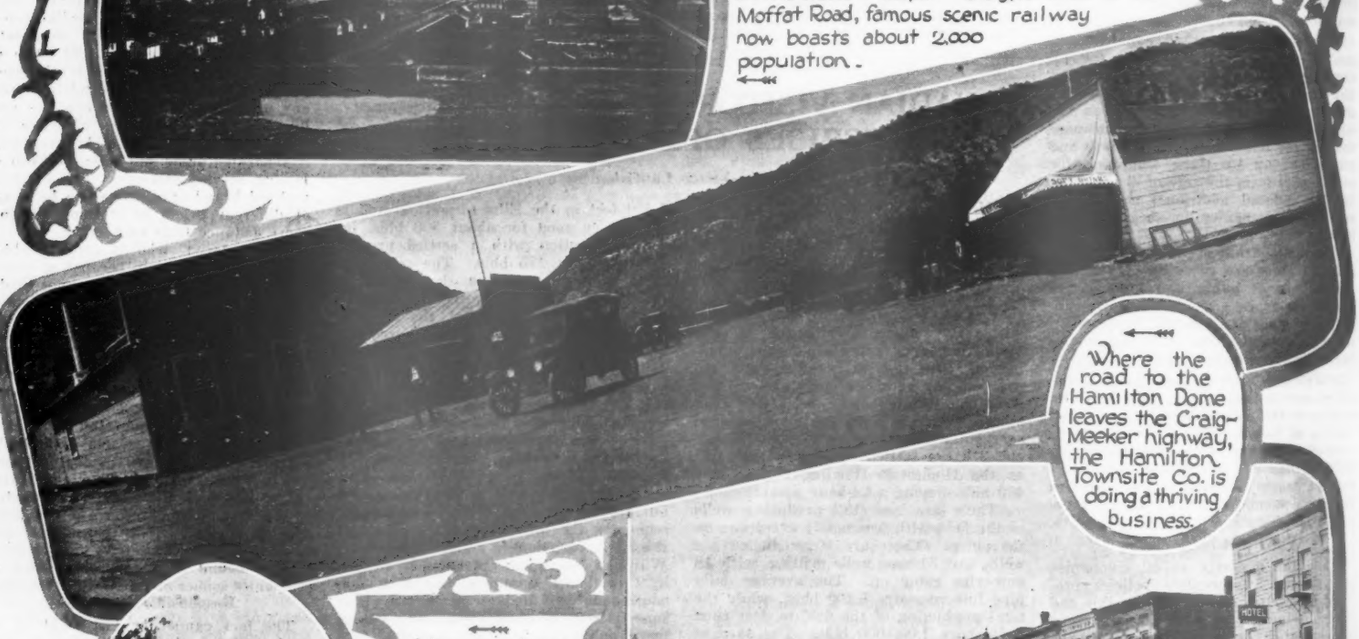
"The Queen City-Moore No. 6 was shot on Saturday afternoon for the second time with 80 quarts of nitro, in hopes of making the well a greater producer, as it was but a light producer at the start but in a good location to expect a good big well if the sand could be loosened up. The Wyomont-Standard No. 4 in Section 25-35-2w. drilled into the Ellis formation; although the well has not been completed it is rated as a 150-bbl. producer now. Work has ceased awaiting orders from head officials now in Calgary as to whether they should proceed. The Ellis is about 20 feet thick in the locality of this well, and, as other wells nearby have shown quite a uniform production of from 80 to 160 bbls. each 24 hours, it is expected this well when completed will equal them. This is one of the Empire group on the eastern edge of the field. The California-McKee No. 4 in Section 25-32-2 has reached the pay sand and will be shot to see if a heavier producer cannot be made of it this week.

"During our visit to the field we learned that each house in the field is furnished with a gas heater and that

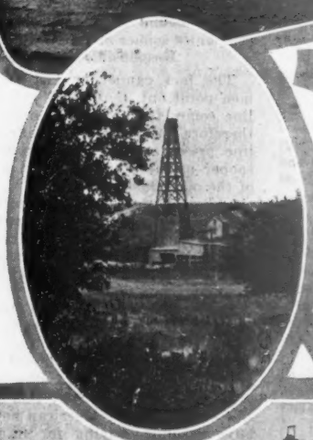
(Continued on Page 142)

A Study in Contrasts~ Western

The Yarg Prod Co.'s well on the Iles Dome, one of the most important structures now being tested on the Western Slope~ ~Craig, terminus of the Moffat Road, famous scenic railway now boasts about 2,000 population.



Where the road to the Hamilton Dome leaves the Craig-Meeker highway, the Hamilton Townsite Co. is doing a thriving business.

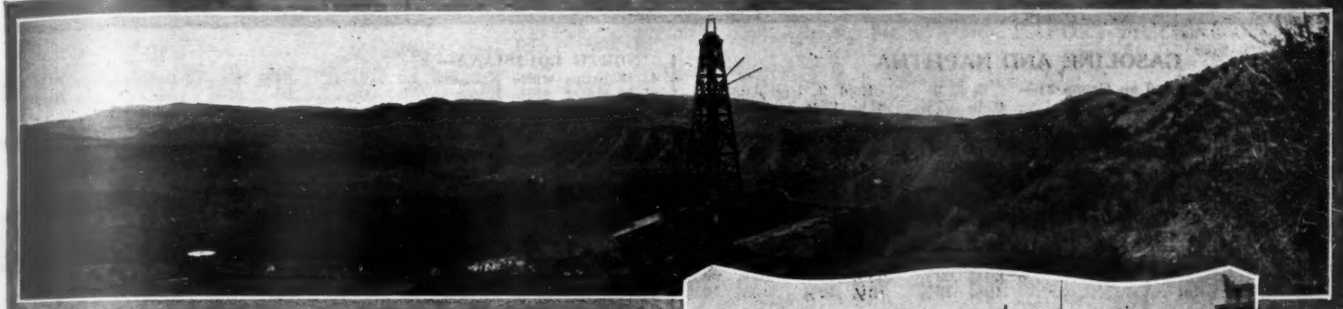


A Kansas wildcat. M.M Valerius O.&G No 1 Fairchild, 10 miles northeast of Russell in a pretty little valley. Western Kansas isn't all like a billiard table~~

Russell, Kansas, on the main line of the U.P., will always be a substantial agricultural center, regardless of its oil future.

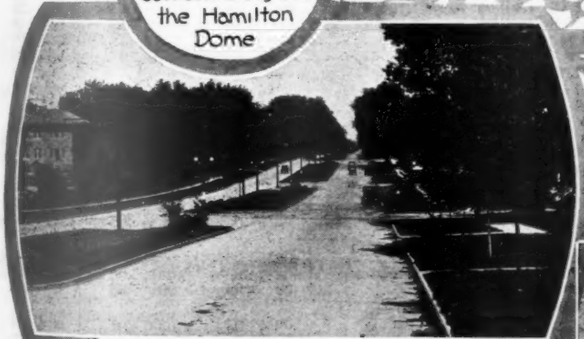
Characteristic of the Western Slope is the eroded condition of Hamilton Dome The Texas-Transcontinental discovery, Knowlton No.1, and the Texas camp are shown in their rugged setting of mountains, boulders and sage brush.

Kansas, Ft. Collins and Craig



The same old sad story ~ Transcontinental well on Beaver Creek Anticline Routt County, 28 miles from Craig, struck water in the Dakota sand ~ ~ Ft Collins 60 miles north of Denver, is a progressive city of 13,000 with broad, clean streets

If anything ever "nestled in a sheltered valley," as the poets say, it is the Prairie P L Co's booster station between Craig and the Hamilton Dome



One of the principal thoroughfares of beautiful Ft Collins, headquarters for Colorado's most recent oil boom..

100-foot flames, roaring unchecked for 3 weeks, furnished thrills for thousands of tourists about 15 miles north of Ft. Collins on the Wellington Dome. The burning well was No. 1 Mitchell, making 80m cu ft of gas and some oil.

Compare this view from the top of a Russell County, Kansas, derrick with the scenery depicted above.~Outside of this field, the wildcatters are in the red, so far ~Combination filling station for man and car in foreground.~ Discovery well on the right.

REFINERY AND CRUDE PRICES

Quotations on Principal Refined Products and Crude Petroleum Markets in All the American Oil Fields

GASOLINE AND NAPHTHA

CHICAGO DIST. (Based on Group 3)—	Sept. 9		Sept. 2		Aug. 26	
50-52 450 end point (Naphtha)	.07½	.07¾	.07¼	.07½	.07¼	.07½
56-58 450 end point	.07¾	.08	.07¾	.08	.07½	.07¾
58-60 437 end point (U. S. Motor)	.08	.08¼	.08	.08¼	.08	.08¼
60-62 400 end point	.09¼	.09½	.09	.09¼	.09	.09¼
64-66 375 end point	.09½	.10	.09¾	.10	.09¾	.10
68-70 360 end point	.10¾	.11	.10¾	.11	.10½	.10¾
OKLAHOMA (Group 3)—						
50-52 450 end point (Naphtha)	.07¼	.07½	.07¼	.07¾	.07¼	.07½
56-58 450 end point	.07½	.07¾	.07¾	.08	.07½	.07¾
58-60 437 end point (U. S. Motor)	.07¾	.08¼	.08	.08¼	.07¾	.08
60-62 400 end point	.09	.09¼	.09	.09¼	.08¾	.09
64-66 375 end point	.09¼	.09¾	.09½	.10	.09¼	.09¾
68-70 359-365 end point	.10¼	.10¾	.10½	.10¾	.10¼	.10½
KANSAS—						
58-60 437 end point (U. S. Motor)	.08	.08¼	.08	.08½	.08	.08¼
NORTH TEXAS—						
48-52 450 end point (Naphtha)	.07	.07½	.07¼	.07½	.07	.07¼
50-52 440 end point (Naphtha)	.07¼	.07½	.07¼	.07½	.07¼	.07½
56-58 450 end point	.07½	.07¾	.07¾	.08	.07½	.07¾
58-60 437 end point (U. S. Motor)	.07¾	.08	.08	.08¼	.07¾	.08
60-62 400 end point	.08¾	.09	.09	.09¼	.08¾	.09
64-66 390 end point	.09	.09¼	.09¼	.09½	.09	.09¼
64-66 375 end point	.09¼	.09½	.09½	.09¾	.09¼	.09½
68-70 360 end point	.10	.10½	.10¼	.10½	.10¼	.10½
NORTH LOUISIANA—						
56-58 450 end point	.07¾	.08¼	.08	.08¼	.07¾	.08
58-60 437 end point (U. S. Motor)	.08	.08½	.08¼	.08½	.08	.08½
60-62 400 end point	.09¼	.09½	.09½	.09¾	.09¼	.09½
64-66 390 end point	.10	.10½	.10	.10¼	.09¾	.10
64-66 375 end point	.10¼	.10½	.10¼	.10½	.10¼	.10½
ARKANSAS—						
58-60 450 end point	.08	.08¼	.08	.08¼	.08	.08¼
58-60 437 end point (U. S. Motor)	.08¼	.08½	.08¼	.08½	.08¼	.08½
64-66 375 end point	.10	.10¼	.10	.10¼	.09¾	.10
ROCKY MOUNTAIN STATES—						
*58-60 437 end point (U. S. Motor)	.11	.11½	.11	.11½	.10¾	.11
PENNSYLVANIA—						
52 Naphtha	.11¼		.11¼		.11¼	
54 Naphtha	.11½		.11½		.11½	
56 Gasoline	.11¾		.11¾		.11¾	
58 Gasoline	.11¾		.11¾		.11¾	
60 Gasoline	.12¾		.12½		.12½	
62 Gasoline	.13¾		.13½		.13½	
64 Gasoline	.14¾		.14½		.14½	
66 Gasoline	.16		.15		.15	
68-70 Gasoline	.17¼		.17		.17	
CALIFORNIA—						
54-56 437 end point (U. S. Motor)	.11	.12	.11	.12	.11	.12

*Colorado points.

NATURAL GASOLINE

CHICAGO DIST. (Based on Group 3)—	Sept. 9		Sept. 2		Aug. 26	
Grade A, 72-78, under 375 e.p., rec. 90%	.08½	.08¾	.08¼	.08½	.07¾	.08
Grade B, 76-82, 375 end point, rec. 85%	.08¼	.08½	.08	.08¼	.07½	.08
Grade C, 80-88, 350 end point, rec. 78%	.08¼	.08½	.07¾	.08	.07½	.07¾
OKLAHOMA (Group 3)—						
Grade A, 72-78, under 375 e.p., rec. 90%	.08¾	.09	.08½	.08¾	.08	.08¼
Grade B, 76-82, 375 end point, rec. 85%	.08½	.08¾	.08¼	.08½	.07¾	.08
Grade C, 80-88, 350 end point, rec. 78%	.08½	.08¾	.08¼	.08½	.07¾	.08
Grade D, 88-92, 350 end point	.08½	.08¾	.08	.08¼	.07½	.07¾
NORTH TEXAS—						
Grade A, 72-78, under 375 e.p., rec. 90%	.08¾	.09	.08½	.08¾		.08
Grade B, 76-82, 375 end point, rec. 85%	.08½	.09	.08¼	.08½	.07¾	.08
Grade C, 80-88, 350 end point, rec. 78%	.08½	.08¾	.08	.08½	.07½	.08
NORTH LOUISIANA—						
Grade B, 72-78, under 375 e.p., rec. 90%	.08½	.08¾	.08½		.08	.08¼
Grade C, 76-82, 375 end point, rec. 85%	.08½	.08¾	.08½		.08	.08¼
CALIFORNIA—						
68-80 absorption, 380-410 end point	.10¼	.10½	.10¼	.10½	.10¼	.10½
78-84 compression, 350 end point	.13		.13		.13	

MOTOR NATURAL GASOLINE (BLEND)

CHICAGO DIST. (Based on Group 3)—	Sept. 9		Sept. 2		Aug. 26	
58-62 437 end point	.07½	.07¾	.07¼	.07¾	.07½	.07¾
60-62 450 end point	.07½	.07¾	.07½	.07¾	.07¼	.07½
64-66 450 end point	.07½	.07¾	.07½	.07¾	.07	.07¼
OKLAHOMA (Group 3)—						
60-62 450 end point	.07½	.07¾	.07½	.07¾	.07½	.07¾
64-66 437 end point	.07½	.07¾	.07½	.07¾	.07½	.07¾
68-70 430-435 end point	.07¾	.08	.07¾	.08	.07½	.07¾
NORTH TEXAS—						
58-62 440 end point	.07½	.07¾	.07½	.07¾	.07¼	.07¾
58-60 450 end point	.07½	.07¾	.07½	.07¾	.07¼	.07¾
PENNSYLVANIA—						
*60-62	.12		.11¼		.11¼	
*64-66	.12		.11¼		.11¼	
*66-68	.12		.11¼		.11¼	
*68-70	.12		.11¼		.11¼	

*At Sistersville, W. Va.

BURNING OIL

CHICAGO DIST. (Based on Group 3)—	Sept. 9		Sept. 2		Aug. 26	
42-43 water white Kerosene	.04½	.04¾	.04¾	.04⅝	.04¾	.04⅝
42-44 water white Kerosene	.04⅝	.05	.04½	.04¾	.04½	.04¾
NORTH LOUISIANA—						
41-43 prime white Kerosene	.04¾	.05	.04¾	.05	.04½	.04⅝
42-44 water white Kerosene	.05	.05¼	.05		.04¾	.05
KANSAS—						
41-43 water white Kerosene	.04⅝	.04⅞	.04⅝	.04⅞	.04⅝	.04⅞
ROCKY MOUNTAIN STATES—						
*40-42 water white Kerosene	.08		.07¾		.07¾	
NORTH TEXAS—						
41-43 water white Kerosene	.04¾	.04⅝	.04⅝	.04⅝	.04¼	.04¼
41-43 prime white Kerosene	.04¼	.04½	.04¼	.04½	.04	.04¼
40-42 prime white Kerosene	.04¼	.04½	.04¼	.04½	.04	.04¼
42-44 prime white Kerosene	.04⅝	.04¾	.04⅝	.04¾	.04½	.04⅝
OKLAHOMA (Group 3)—						
41-43 water white Kerosene	.04½	.04¾	.04½	.04¾	.04¾	.04⅝
42-44 water white Kerosene	.04⅝	.04⅞	.04¾	.04⅞	.04⅝	.04¾
41-43 prime white Kerosene	.04¼	.04⅝	.04¼	.04⅝	.04½	.04⅝
ARKANSAS—						
41-43 water white Kerosene	.04¾		.04¾		.04⅝	.04⅞
42-44 water white Kerosene	.05	.05¼	.05		.04¾	.05
PENNSYLVANIA—						
43 Kerosene prime white	.06¾		.06¼		.06	
45 Kerosene water white	.07		.06½		.06¼	
46 Kerosene water white	.07¼		.06¾		.06½	
47 Kerosene water white	.07¾		.07¼		.07	
34 Neutral	.06½		.06½		.06¼	
34 Sundebloomed Neutral	.07½		.07½		.07½	
36 Miners' Neutral	.06¼		.06¼		.06¼	
300 Mineral Seal	.07½		.07		.07	
CALIFORNIA—						
40-42 water white (high burning test)	.07½	.08	.07½	.08	.07½	.08
Engine distillate, 43-45 445 end point	.08½	.09	.08½	.09	.08½	.09
Engine distillate, 42-44 480 end point	.07½	.07¾	.07½	.07¾	.07½	.07¾

*Colorado points.

FUEL OILS

CHICAGO DIST. (Based on Group 3)—	Sept. 9		Sept. 2		Aug. 26	
24-26 Fuel Oil (sellers' cars, Group 3)	.90	.95	.85	.90	.80	.85
22-24 (El Dorado)	.90	.95	.90	.95	.85	.90
18-20 (Smackover)	.85	.90	.85	.90	.75	.80
32-36 Gas Oil	.03	.03¼	.03	.03¼	.02¾	.03¼
38-40 Straw distillate	.03½	.03¾	.03¼	.03½	.03¼	.03½
KANSAS—						
24-26 Fuel Oil	.95	1.00	1.00		.95	1.00
32-36 Gas Oil	.03	.03½	.03	.03½	.02¾	.03
38-40 Distillate	.03½	.03⅝	.03½	.03⅝	.03½	.03⅝
OKLAHOMA (Group 3)—						
22-26 Fuel Oil (sellers' cars)	.87½	.92¼	.90	.95	.80	.85
24-26 Fuel Oil (buyers' cars)	.87½	.92½	.87½	.92½	.80	.85
24-26 Fuel Oil (sellers' cars)	.90	.95	.90	.95	.85	.90
28-30 Fuel Oil (sellers' cars)	1.00	1.05	1.00	1.05	.95	1.00
32-36 Gas Oil	.02¾	.03	.02¾	.03	.02¾	.02¾
38-40 Straw distillate	.03⅜	.03⅝	.03¼	.03½	.03¼	.03½
NORTH TEXAS—						
24-26 Fuel Oil (sellers' cars)	.82½	.07½	.85	.90	.77½	.87½
26-30 Fuel Oil	.90	.95	90	.95	.85	.90
32-36 Gas Oil	.02¾	.03	.02¾	.03	.02¾	.03
36-38 Gas Oil	.03⅛	.03¼	.03⅛	.03¼	.03	.03⅛
38-40 Straw distillate	.03¼	.03½	.03¼	.03½	.03¼	.03½
NORTH LOUISIANA—						
20-22 Fuel Oil	.90	.95	.90	.95	.90	.95
32-36 Gas Oil	.03	.03½	.03	.03¼	.02¾	.03
36-40 Light Straw distillate	.03½	.03¾	.03¼	.03¾	.03	.03¼
ARKANSAS—						
38-40 Distillate	.03½	.03⅝	.03½	.03⅝	.03½	.03⅝
32-36 Gas Oil	.03⅛	.03¼	.03⅛	.03¼	.03	.03¼
22-26 Refinery Fuel Oil	.90	.95	.90	.95	.85	.90
GULF COAST (South Texas)—						
Gas Oil	.03¾	.04	.03¾	.04	.03¾	.04
Fuel Oil	1.50	1.60	1.50	1.60	1.50	1.60
PENNSYLVANIA—						
30-34 Fuel Oil	.05		.05		.05	
36-40 Fuel Oil	.05¼		.05¼		.05¼	
CALIFORNIA—						
33-36 Distillate	.03¾	.04½	.03¾	.04½	.03¾	.04½
27-33 Distillate	.03½	.03¾	.03½	.03¾	.03½	.03¾
15-20 Fuel Oil (at tide water)	1.40		1.40		1.40	

NEUTRAL OILS

OKLAHOMA (Group 3)— Pale Neutrals:	Sept. 9		Sept. 2		Aug. 26	
70-80 vis., 2½ color, 20-25 cold test	.04	.04½	.04	.04½	.04	.04½
100 vis., 2 color, 20-25 cold test	.05	.05½	.05	.05½	.05	.05½
100 vis., 3 color, 20-25 cold test	.04½	.05	.04½	.05	.04½	.05
150 vis., 3 color, 20-25 cold test	.08	.09	.08	.09	.08	.09
150 vis., 4 color, 20-25 cold test	.08	.08½	.08	.08½	.08	.08½
180 vis., 4 color, 23-28 cold test	.09	.09½	.09	.09½	.09	.09½
180 vis., 3 color, 23-28 cold test	.09½	.10	.09½	.10	.09½	.10
200 vis., 3 color, 23-28 cold test	.11½	.12	.11½	.12	.11½	.12
200 vis., 4 color, 23-28 cold test	.11	.11½	.11	.11½	.11	.11½
220 vis., 3 color, 25-30 cold test	.12½	.13	.12½	.13	.12½	.13
220 vis., 4 color, 25-30 cold test	.11¾	.12¼	.11¾	.12¼	.11¾	.12¾
240 vis., 3 color, 25-30 cold test	.14½	.15	.14½	.15	.14½	.15
240 vis., 4 color, 25-30 cold test	.14	.14½	.14	.14½	.14	.14½
280 vis., 3 color, 25-30 cold test	.16½	.17	.16½	.17	.16½	.17
280 vis., 4 color, 25-30 cold test	.15½	.16	.15½	.16	.15½	.16

REFINERY AND CRUDE PRICES

Quotations on Principal Refined Products and Crude Petroleum Markets in All the American Oil Fields

Red Neutrals:						
180 vis., 5 color, 23-28 cold test	.08½	.09	.08½	.09	.08½	.09
180 vis., 6 color, 23-28 cold test	.12¼	.12¾	.12¼	.12¾	.12¼	.12¾
200 vis., 5 color, 23-28 cold test	.10½	.11	.10½	.11	.10½	.11
200 vis., 6 color, 23-28 cold test	.13	.13½	.13	.13½	.13	.13½
220 vis., 5 color, 25-30 cold test	.11	.11½	.11	.11½	.11	.11½
220 vis., 6 color, 25-30 cold test	.14¼	.14¾	.14¼	.14¾	.14¼	.14¾
240 vis., 5 color, 25-30 cold test	.13	.13½	.13	.13½	.13	.13½
240 vis., 6 color, 25-30 cold test	.15¼	.15¾	.15¼	.15¾	.15¼	.15¾
280 vis., 5 color, 25-30 cold test	.14½	.15	.14½	.15	.14½	.15
180-200 vis., S. R. green, 40-45 cold test	.07	.07½	.07	.07½	.07	.07½
190-200 dark green, 40-45 cold test	.06	.06½	.06	.06½	.06	.06½
170-190 dark green, 4045 cold test	.05¾	.06	.05¾	.06	.05¾	.06
600, E filtered	.20	.21	.20	.21	.20	.21
590-600 Bright Stock, 150-160 vis.	.28	.29	.28	.29	.28	.29
600-610 Bright Stock, 190-210 vis.	.32	.34	.32	.34	.32	.34
Waxes:						
124-126 White Crude Scale Wax	.05¼	.05½	.05¼	.05½	.04¾	.05¼
PENNSYLVANIA—						
150, 3 color	.20		.20		.20	
180, 3 color	.20¾		.20¾		.20¾	
200, 3 color	.22¼		.22¼		.22¼	
220, 3 color	.26¾		.26¾		.26¾	
600, steam refined	.17¼		.17		.17	
635, steam refined	.21		.20½		.20½	
650, steam refined	.23		.22¼		.22¼	
600, Pennsylvania flash	.28		.25		.25	
630, Pennsylvania flash	.34		.32		.32	
*550, E filtered	.19¼		.19¼		.19¼	
*600, E filtered	.20½		.20¼		.20¼	
600, E filtered	.21		.21		.21	
600, D filtered	.28		.27		.27	
550, E filtered	.20		.20		.20	
550, D filtered	.24		.24		.24	
Pennsylvania Bright Stock	.35		.35		.35	
†122-124 White Crude Scale Wax	.05¾		.05¾		.05¾	
*122-124 White Crude Scale Wax	.05⅞		.05⅞		.05⅞	

*At Warren, Pa. †At New York City.

GULF COAST (South Texas)—						
Zero Black	.05	.06	.05	.06	.05	.06
No. 2 color, 100 vis., pale oil	.08	.09	.08	.09	.08	.09
No. 2 color, 150 vis., pale oil	.10	.11	.10	.11	.10	.11
No. 3 color, 200 vis., pale oil	.12	.13	.12	.13	.12	.13
No. 3 color, 300 vis., pale oil	.14½	.15½	.14½	.15½	.14½	.15½
No. 3½ color, 500 vis., pale oil	.16½	.17½	.16½	.17½	.16½	.17½
No. 3½ color, 750 vis., pale oil	.22	.23	.22	.23	.22	.23
No. 4½ color, 1200 vis., pale oil	.24	.25	.24	.25	.24	.25
No. 4½ color, 2000 vis., pale oil	.28	.29	.28	.29	.28	.29
No. 1½ color, 150 vis., pale filtered	.21	.22	.21	.22	.21	.22
No. 2 color, 200 vis., pale filtered	.22	.23	.22	.23	.22	.23
No. 3 color, 300 vis., pale filtered	.25	.26	.25	.26	.23	.24
No. 3½ color, 500 vis., pale filtered	.30	.31	.30	.31	.30	.31
No. 3½ color, 750 vis., filtered	.40	.41	.40	.41	.40	.41
No. 5 to 6 color, 200 vis., red oil	.10	.11	.10	.11	.10	.11
No. 5 to 6 color, 300 vis., red oil	.12	.13	.12	.13	.12	.13
No. 5 to 6 color, 500 vis., red oil	.14½	.15½	.14½	.15½	.14½	.15½
No. 5 to 6 color, 750 vis., red oil	.19	.20	.19	.29	.19	.20
CALIFORNIA—						
200 vis., 2½-3 color	.15	.17	.15	.17	.15	.17
300 vis., 2 -4 color	.16	.19	.16	.19	.16	.19
350 vis., 3½-4 color	.17½	.20	.17½	.20	.17½	.20
400 vis., 4 -4½ color	.19	.20	.19	.20	.19	.20
Red Neutrals:						
200 vis., 4½-5 color	.13	.14	.13	.14	.13	.14
300 vis., 5 -6 color	.14	.17	.14	.17	.14	.17
400 vis., 5 -6 color	.16	.18	.16	.18	.16	.18
500 vis., 6 -6½ color	.17	.18	.17	.18	.17	.18
600 vis., 9½ plus	.18	.21	.18	.21	.18	.21

Note: Bright stocks are not manufactured commercially on the Pacific Coast.

NEW YORK DOMESTIC MARKET

	Sept. 9	Sept. 2	Aug. 26
Motor Gasoline:			
Spot Gasoline, Bayonne	.10¾	.10¾	.10¾
V. M. P. Naphtha, in steel barrels	.17	.17	.18
Lubricating Oil (Industrial) at refinery, Bayonne, N. J.:			
Cylinder, extra light filtered, in barrels	.44½	.44½	.44½
Cylinder, light filtered, in barrels	.38	.38	.38
Cylinder, Bright Stock	.48½	.48½	.48½
Cylinder, steam refined (600)	.30½	.30½	.30½
Black, in bulk	.12	.12	.12
Bloomless, white, 30-31 gravity, 170 vis.	.44	.44	.44
Bloomless, 885 specific gravity	.16½	.16½	.16½
Red Paraffin:			
170 viscosity	.22	.22	.22
212 viscosity	.23	.23	.23
265 viscosity	.24	.24	.24
295 viscos ty	.26	.26	.26
Paraffin, 903 specific gravity	.31	.31	.31
*Fuel Oil:			
Bunker Oil, 14 plus: August 16 to 30, $1.75.			
Diesel Oil, at refinery, gallon	.05	.05	.05
Furnace Oil, tank wagon, gallon	.10	.10	.10
Gas Oil, delivered in New York	.06	.06	.06
Wax, fully refined:			
120-122 a.m.p.	.05¼	.05¼	.05¼
125-127 a.m.p.	.05¾	.05¾	.05¾
130-132 a.m.p.	.06¾	.06¾	.06¾
135-137 a.m.p.	.08	.08	.08

*Lighterage, 6.5c a barrel extra.

NEW YORK EXPORT PRICES

	Sept. 9	Sept. 2	Aug. 26
Motor Gasoline, in cases, gallon	.26.14	.26.14	.26.14
Motor Gasoline, U. S. Navy, spec. gallon	.12.25	.12.25	.12.25
Naphtha, 60° F., 59-61 spec. grav.	.13.25	.13.25	.13.25
Naphtha, 60° F., 63-66 spec. grav.	.14.5	.14.5	.14.5
Naphtha, 60° F., 66-68 spec. grav.	.16.0	.16.0	.16.0
Kerosene:			
Standard white, in bulk	.06½	.06½	.06½
Standard white, in barrels, gallon	.13½	.13½	.13½
Standard white, in cases, gallon	.16.9	.16.9	.16.9
Water white, in cases, gallon	.07½	.07½	.07½
Water white, in barrels, gallon	.14½	.14½	.14½
Water white, in cases, gallon	.17.9	.17.9	.17.9

LOS ANGELES EXPORT PRICES

	Sept. 9	Sept. 2	Aug. 26
Kerosene:			
Water white	.05 .05½	.04½ .05	.04½ .05

CRUDE OIL PRICES

September 6.—Corning crude reduced 10 cents.

August 20.—Imperial Oil, Ltd., advanced Canadian crudes 25 cents.

August 21.—Joseph Seep Purchasing Agency reduced Bradford-Allegany crudes 15 cents.

Arkansas and North Louisiana

Caddo, 38° and above	$1.35
35° to 37.9°	1.25
32° to 34.9°	1.15
Below 32°	1.00
Homer, 35° and above	1.35
33° to 34.9°	1.25
31° to 32.9°	1.15
Below 31°	1.00
Haynesville, 33° and above	1.25
Below 33°	1.15
El Dorado, 33° and above	1.35
Below 33°	1.25
Bull Bayou, 38° and above	1.30
35° to 37.9°	1.15
32° to 34.9°	1.00
Cotton Valley	.80
De Soto	1.35
Crichton	1.15
Bellevue	1.25
Smackover, 26° and above	.95
25° to 25.9°	.80
24° to 24.9°	.70
Below 24°	.60
*Stephens, Ark.:	
Below 23°	.60
23° to 25.9°	.80
26° to 27.9°	.95
28° to 31°	1.00

*Posted by Atlantic Oil Producing Co.

Wyoming and Montana

Rock Creek (Wyo.)	1.20
Salt Creek	1.10
Big Muddy	1.00
Mule Creek	.60
Grass Creek (light)	1.45
Elk Basin	1.45
Lance Creek	1.40
Osage	1.40
Cat Creek (Mont.)	1.45
Sunburst (Mont.)	.90
Lost Soldier	.78
Greybull and Torchlight	1.40
Hamilton Dome	1.05

Lander based on contracts covering entire production of fields.

Oklahoma, Kansas, North and Central Texas

Prairie Oil & Gas Co. and other major purchasing companies, except as noted:

Below 30°	$1.10
30° to 32.9°	1.25
33° and above	1.50
Magnolia Petroleum Co.:	
Below 28°	.90
28° to 30.9°	1.00
31° to 32.9°	1.10
33° and above	1.25
Corsicana Light	1.25
Corsicana Heavy	.90
Mexia	1.25
Powell	1.25
Thrall	1.00

Humble Oil & Refining Co.

Below 30°	$1.00
30° to 32.9°	1.20
33° to 34.9°	1.40
36° and above	1.60
Wichita and Archer Counties	1.35
Mexia	1.35
Powell	1.35
Currie	1.35

Gulf Coast

Grade "A"	$1.35
Grade "B"	1.15
Luling	.90
Laredo (Magnolia Petroleum Co.)	.75
Rockdale-Minerva (Milam County)	1.25
Calliham (Live Oak-McMullen)	1.53
*High Island	.85

*Posted by Sun Co.

***Somerset**

Under 28° gravity	.90
28° to 30.9°	1.00
31° to 32.9°	1.10
33° and above	1.25

*Posted by Grayburg Oil Co.

California

14° to 14.9°	$1.00
20° to 20.9°	1.01
21° to 21.9°	1.02
22° to 22.9°	1.03
23° to 23.9°	1.05
24° to 24.9°	1.07
25° to 25.9°	1.10
26° to 26.9°	1.13
27° to 27.9°	1.16
28° to 28.9°	1.19
29° to 29.9°	1.22
30° to 30.9°	1.25
31° to 31.9°	1.28
32° to 32.9°	1.31
33° to 33.9°	1.34
34° to 34.9°	1.37
35° gravity and above	1.40

Eastern States

Penna Grade Oil in New York Transit Lines	$2.85
Bradford District Oil in National Transit Lines	$2.85
Penna Grade Oil in National Transit Lines	2.75
Penna Grade Oil in Southwest Pa. Pipe Line Lines	2.75
Penna Grade Oil in Eureka Pipe Line Lines	2.75
Penna Grade Oil in Buckeye Pipe Line Lines	2.75
Cabell Grade Oil in Eureka Pipe Line Lines	1.45
Corning Grade Oil in Buckeye Pipe Line Lines	1.65
Somerset Medium Oil in Cumberland Pipe Line Lines	1.55
Somerset Light Oil in Cumberland Pipe Line Lines	1.70
Ragland Grade Oil in Cumberland Pipe Line Lines	.90
Lima	1.83
Wooster	1.65
Illinois	1.62
Indiana	1.63
Princeton	1.62
Plymouth	1.00
Waterloo	1.10
†Oil Springs, Canada	2.55
†Petrolia, Canada	2.48
*Western Kentucky, 36° and above	1.40
*Western Kentucky 33° to 35.9°	1.30
*Western Kentucky, 32.9° and below	1.20
Cumberland and Monroe Counties, (Ky.) (Paragon Dev. Co.)	1.70

†Plus Government bounty of 26¼c.

*Prices for Warren, Allen, Hancock, and Ohio Counties by Indiana Refining Co. Prices for Warren and Simpson Counties by Paragon Development Co.

Mexican Crude

*Tuxpam (f.o.b. Mexican ports)	$1.15
†Panuco (f.o.b. Mexican ports)	.95
Tuxpam (New York)	1.75
Panuco (New York)	1.40

*Plus 32.33c tax. †Plus 17.64c tax. Prices based on contracts.

Few Concerns Refine Oil Exclusively

Great Bulk of Crude Oil Refined in Mid-Continent Handled by Companies With Crude Supply and Jobbing Facilities

By C. O. Willson

To many within and without the oil industry, the Mid-Continent area is composed of refinery organizations operating plants with no interest in the petroleum business other than the manufacture of refined products. As the center of the so-called "independent" refining industry, it is conceived as an area in which with rare exceptions the refiner buys all of his crude supplies from an independent producer and then after securing a variety of refined products sells his output at tank car prices to independent jobbing interests who in turn through wholesale and retail stations place the gasoline, kerosene, distillates, lubricating oils and other products in the hands of the consumers.

The accompanying table, however, is proof of the statement that the refining industry does not occupy the position just outlined. The table summarizes actual conditions in the Mid-Continent area in regard to refinery organizations both in regard to plants which were operating on August 1 and those which were shut down on that date. The data were compiled from the monthly refinery reviews of The Oil and Gas Journal, the latest of which appeared in the August 7 issue. It was prepared with the view of determining the collective importance of four classes of refiners.

	Refiners Operating Aug. 1, 1924				Plants Shut Down Aug. 1, 1924		
	No. of Plants	Capacity	Crude Runs Aug. 1	Pct. of Total Crude Runs	No. of Plants	Capacity	Pct. of Shut Down Capacity
Class 1—							
Refiners with crude and jobbing facilities	42	271,000	175,150	52.6	7	33,000	12.9
Class 2—							
Refiners with crude but no jobbing facilities	27	139,800	79,700	23.9	5	25,500	9.9
Class 3—							
Refiners with jobbing facilities but no crude	14	21,350	11,050	3.6	4	16,000	6.2
Class 4—							
Refiners with no crude or jobbing facilities	36	113,900	67,750	20.3	107	181,280	70.8
Total	119	546,050	332,900	100	123	255,780	100

Companies whose crude supply is less than 10 per cent of their refinery runs or who market less than 10 per cent of their gasoline output through their own bulk or service stations are not considered as having either crude or jobbing facilities.

Producers and Jobbers

As explained in the foot note of the table for the purposes of this classification a refinery organization which disposed of more than 10 per cent of its gasoline output through its own bulk and service stations was listed as a plant with jobbing interests. Several refinery organizations sell gasoline and kerosene through a few stations located near their plants but market the remainder of their output at tank car prices. Where the plant output is large, this local jobbing constitutes only a small fraction of the total output and these concerns are not listed as having jobbing connections.

Similarly a refiner is not considered as having crude production of his own where the total production is less than 10 per cent of his refinery runs. In several instances refiners have production which is less than 10 per cent of their crude runs to stills. The crude production or jobbing facilities are considered as belonging to the refining organizations regardless of whether they are owned by the company, directly or through allied or subsidiary organizations.

The data in the table should be considered with the fact that approximately two out of every three barrels of crude oil produced in the Mid-Continent fields is refined outside the producing area. On August 1, the total crude runs to stills of Mid-Continent refiners was 332,900 barrels. For the week ending August 2, the daily average crude production of Mid-Continent fields was 1,035,708 barrels. Thus the runs to stills was 32.1 per cent of the total crude production. The 67.9 per cent of the crude production not refined within the Mid-Continent area is transported by pipe line and water to distant points.

Crude to Outside Refineries

No accurate figure is available but it is probable that 95 per cent of this crude oil not refined within the Mid-Continent finds its way to the refineries of the major oil interests. These major companies either produce the oil or buy it at posted prices from other producers. These concerns are integrated organizations and market the bulk of their refinery output through their own jobbing facilities.

The table shows that the Mid-Continent refineries with their crude productions and jobbing interests (Class 1) on August 1 were running 175,150 barrels of the total crude runs to stills of 332,900 barrels. This gives these concerns even within a Mid-Continent area a dominant position in which they handle 52.6 per cent of the total crude to stills. It is apparent that the operations of these integrated companies should be added to those who refine the 702,808 barrels of crude oil produced in the Mid-Continent but refined elsewhere. Adding this to the 175,150 barrels just mentioned you have 877,958 barrels or 84.7 per cent of the 1,035,708 barrels daily production refined by refineries who directly or through allied or subsidiary organizations are also engaged in the production of crude and the sale of refined products through their own bulk and service stations. This is an approximate figure which does not take into consideration the very small part of crude production of the Mid-Continent which moves to small outside plants not engaged in crude production or the wholesaling or retailing of their own products. However, as previously indicated the total refinery runs of these plants are so small in comparison to those of the larger companies that they would not materially change the above percentages.

Refine 85 Per Cent

The fact that approximately 85 per cent of the total crude production of the Mid-Continent is refined by integrated companies located both inside and outside the Mid-Continent Field will be surprising to those who have believed that the great bulk of the Mid-Continent production was purchased by refiners engaged exclusively in the manufacture of refined products.

It is true that the integrated companies did not produce all the crude oil they refined nor do they sell all their own output through their own wholesale and retail distributing facilities. However, they are sufficiently interested in these two divisions of the oil industry so that in the market developments of the industry, they are primarily concerned, not in the refinery tank car prices, but rather the posted crude schedules and tank wagon and service station prices of the distributing end. In brief, these interests in determining their markets must not only have in mind their refinery operations but also consider the cost of producing the raw material and the proper price relationship between it and the prices obtained from the ultimate consumer.

Interested in Crude Prices

It means in the final analysis that the great bulk of the crude production even in the Mid-Continent area is handled by concerns to whom the prevailing tank car market of the refined market is of little importance in so far as their own operations are concerned. It is well also to remember that these same interests have the great bulk of the investment in pipe lines and the storage of crude and refined products. It follows that this tremendous investment must be taken into consideration in changing either the crude or retail prices and in responding to the shifting conditions of supply and demand it is not surprising that their position often is not the same as the disintegrated refiner.

The table shows that the refiners who have crude interests but no jobbing facilities on August 1 had 79,700 barrels of the daily crude runs in Mid-Continent or 23.9 per cent of the total. The outstanding example of this class is Cosden & Company of Tulsa, the largest refinery organization of the Mid-Continent and also one of the large crude producers and yet has no jobbing facilities. However, this class is also interested in the protection of the crude market at all times and in that sense they could be added to Class 1 and the outside refiners who produce the bulk of the crude production.

The third class is composed of refiners with no crude but who market a large part of their refinery output through their own distributing facilities. In most cases these are small concerns who market their output within a radius of a few miles from their plants. Their total crude runs to stills on August 1 was only 11,050 barrels daily or 2.6 per cent of total runs.

The fourth class is composed of refiners without crude production or jobbing facilities. On August 1 they were running to stills 67,750 barrels daily or 20.3 per cent of the total. Comparative figures are not available but a study of developments in Mid-Continent refinery circles over the past three years shows that Class 1 refiners are gradually obtaining a relatively stronger position at the expense of three other classes, especially the plants with neither crude production nor facilities to market directly part or the whole of their output through their own wholesale and retail facilities. This can be explained as a development of the unsatisfactory market conditions of the three-year period especially applicable to those refiners who market their output at spot tank cars prices. Concerns who have had their own crude production or their own jobbing facilities or both have had a relatively stronger position. As a result there have been several shifts in ownership and enlargement programs whereby refinery organizations became connected directly or allied with companies which could furnish part or the whole of the needed crude supply and sell directly through their own distributing facilities.

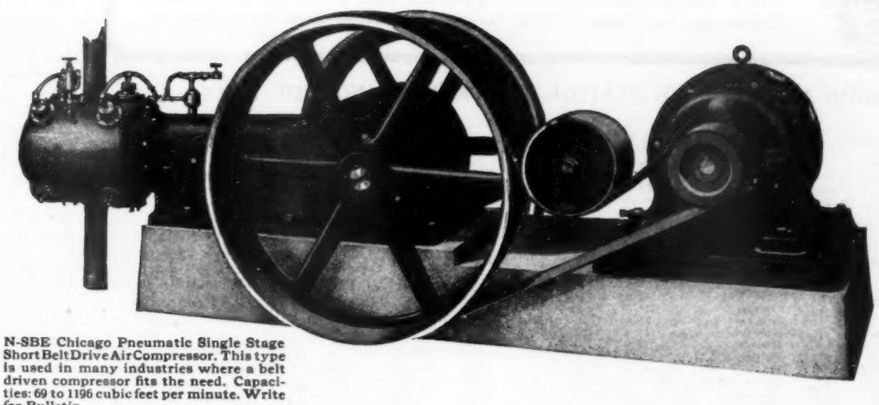
Large Concerns Increase Runs

In this connection it is worthy of note that practically all of the increase in refinery runs in the Mid-Continent during the past two or three years has been in plants owned by the larger integrated companies. Their increases have more than offset the shut downs of the smaller plants.

The relative position of the four classes is further emphasized in that part of the accompanying table which shows the class division of the shut down plants in the Mid-Continent. According to the table, 107 of the 123 plants shut down in the Mid-Continent area on August 1 belong to concerns of the fourth class. It would be incorrect to state that plants owned by these concerns are shut down solely because they lacked their own crude supply or did not have jobbing facilities. There are many other reasons having to do with finances, poor location, lack of efficiency in operation and other causes. But the data on shut down plants do serve to show in a general way the relative position of the four classes.

A brief resume will now be made of the position of each company in regard to crude and marketing facilities, having one or more plants operating on August 1. Several of the larger integrated companies can be grouped together. In this group comes the Cushing, Ponca City and Okmulgee, Oklahoma plants of the Empire Refineries, Inc., and the one at Gainesville, Texas, owned by the Producers Refining Company. Both companies belong to the Doherty (Cities Service) interests. In this group also come the

(Continued on Page 140)



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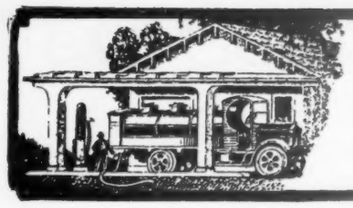

TANK WAGON MARKETS

Tank wagon quotations for gasoline and kerosene in United States as furnished by the larger marketing concerns, Sept. 9.

ALL TANK WAGON AND SERVICE STATION QUOTATIONS INCLUDE TAXES

STANDARD OIL CO. (INDIANA)

Main Service Station Price

	Gasoline Tank wagon	Gasoline Incids tax of station	Gasoline Service wagon	Kero. Tank wagon
Chicago District—				
†100 gals. or more 14.25	...		18.0	11.0

Tank wagon prices on April 10 1922; g. up 1½c; May 8, g. up 1c; June 27, both un 1c; July 19 g. down 2c. k. down 1c; Oct. 10, g. down 2c; Oct. 21, g. down 1c; Feb. 5, 1923, g. up 1c; Feb. 20, g. up 1c; Aug. 14, g. down 6.6c; Oct. 4, k. down 1½c; Nov. 10, g. down 1.4c; Dec. 29, g. up 2c; Jan. 12, 1924, g. up 2c, k. up 1c; Feb. 5, g. up 2c, k. 1c; July 18 g. down 1c; July 30, g. and k. down 1c.

Decatur, Ill.	16.2	...	18.2	11.5
East St. Louis	15.1	...	17.35	10.6
Joliet	16.4	...	18.4	11.7
Peoria	13.0	...	15.0	11.5
Quincy	16.2	...	18.2	11.3
Davenport, Ia.	11.0	...	14.0	11.9
Des Moines	14.5	...	16.5	11.9
Keokuk	12.5	...	14.5	11.9
Sioux City	14.0	...	16.0	11.5
Duluth, Minn.	17.2	...	19.2	12 6
Minneapolis	12.0	...	16.0	12.6
La Cross, Wis.	12.9	...	14.9	12.4
Milwaukee	15.0	...	18.0	11.3
Madison	16.2	...	18.2	11.5
Detroit, Mich.	16.8	...	18.8	12.2
Grand Rapids	16.7	...	18.7	12.1
Saginaw	16.9	...	18.9	12.3
Evansville, Ind.	18.0	2.0	20.0	11.5
Fort Wayne	16.4	2.0	18.4	11.9
Indianapolis	18.2	2.0	20.2	11.7
South Bend	18.4	2.0	20.4	11.9
Fargo, N. D.	16.3	1.0	18.3	14.6
Huron, S. D.	18.0	2.0	20.0	13.1
Sioux Falls	17.0	2.0	18.0	12.6
*Kansas City, Mo.	11.9	1.0	14.9	10.3
Springfield	16.8	...	18.8	11.2
*St. Louis	14.6	0.5	17.9	11.0
*St. Joseph	16.0	0.5	18.0	10.9
Wichita, Kans.	13.0	...	15.0	9.8
Bartlesville, Okla.	16.5	2.5	19.4	9.9

*City tax.
†Tank wagon price on less than 100 gallons, 16c.

ATLANTIC COAST DISTRICT

Standard Oil Co. (New Jersey)

	Gasoline Tank wagon	Gasoline Incids tax of station	Gasoline Service wagon	Kero. Tank wagon
Newark, N. J.	17.5	...	....	13.0
Atlantic City	17.5	...	....	13.0
Annapolis, Md.	19.0	2.0	21.0	12.5
Baltimore	19.0	2.0	21.0	12.5
Cumberland	19.0	2.0	21.0	12.5
Washington, D. C.	19.0	2.0	21.0	12.5
Norfolk, Va.	20.5	3.0	22.5	13.5
Petersburg	20.5	3.0	22.5	13.5
Danville	20.5	3.0	22.5	13.5
Richmond	20.5	3.0	22.5	13.5
Roanoke	20.5	3.0	22.5	13.5
Keyser, W. Va.	19.0	2.0	....	13.5
Charleston	19.0	2.0	....	13.5
Parkersburg	19.0	2.0	....	13.5
Wheeling	19.0	2.0	....	13.5
Charlotte, N. C.	20.0	3.0	....	13.5
Hickory	20.0	3.0	....	13.5
Mt. Airy	20.0	3.0	....	13.5
Salisbury	20.0	3.0	....	13.5
Charleston S. C.	20.5	3.0	....	14.0
Columbia	20.5	3.0	....	14.0

SOUTHERN DISTRICT

Standard Oil Co. (Kentucky)

	Gasoline Tank wagon	Gasoline Incids tax of station	Gasoline Service wagon	Kero. Tank wagon
Atlanta, Ga.	19.0	3.0	23.0	13.0
Augusta	21.0	3.0	23.0	13.5
Macon	21.0	3.0	23.0	14.5
Savannah	18.0	3.0	20.0	13.0
Birmingham, Ala.	19.0	2.0	21.0	14.5
Mobile	18.0	2.0	20.0	12.5
*Montgomery	20.0	3.0	22.0	15.5
Clarksdale, Miss	18.0	3.0	21.0	12.0
Jackson	18.0	3.0	21.0	10.0
Natchez	17.5	3.0	20.5	11.5
Vicksburg	17.5	2.0	20.5	11.5
Jacksonville, Fla	19.0	3.0	21.0	13.0
Miami	21.0	3.0	23.0	14.5
Pensacola	19.0	3.0	21.0	13.5
Tampa	19.0	3.0	21.0	13.0
Lexington, Ky.	17.0	3.0	20.0	14.0
Covington	16.0	3.0	19.0	14.0
Louisville	16.0	3.0	18.0	12.0

*In addition to State tax of 2 cents on gasoline, Montgomery has city tax of 1 cent on gasoline and ½ cent on kerosene.

PACIFIC COAST DISTRICT

Standard Oil Co. (California)

	Gasoline Tank wagon	Gasoline Incids tax of station	Gasoline Service wagon	Kero. Tank wagon
San Francisco	17.0	2.0	20.0	15.5
Los Angeles	16.0	2.0	19.0	16.5
Fresno	17.5	2.0	20.5	17.5
Reno, Nev.	20.5	2.0	23.5	19.0
Portland, Ore.	19.0	3.0	22.0	16.5
Seattle, Wash.	18.0	2.0	21.0	16.5
Tacoma	18.0	2.0	21.0	16.5
Spokane	22.0	2.0	25.0	20.5
Phoenix, Ariz.	23.0	2.0	26.0	21.5

ROCKY MOUNTAIN DISTRICT

Continental Oil Co.

	Gasoline Tank wagon	Gasoline Incids tax of station	Gasoline Service wagon	Kero. Tank wagon
Basin, Wyo.	19.0	1.0	....	14.0
Casper	19.0	1.0	19.0	12.0
Cheyenne	18.5	1.0	20.5	13.5
Cody	20.0	1.0	....	15.0
Lander	19.0	1.0	....	14.0
Albuquerque, N. M.	20.0	1.0	22.0	16.0
Salt Lake Utah	22.0	2.0	24.0	17.0
Ogden	22.0	2.5	24.0	17.0
Denver, Colo.	18.0	2.0	20.0	13.5
Glenwood Spgs.	22.0	2.0	....	17.5
Pueblo	18.0	2.0	20.0	14.5
Billings, Mont.	20.5	2.0	22.5	14.5
Butte	22.0	2.0	24.0	15.0
Great Falls	22.0	2.0	24.0	15.0
Helena	22.0	2.0	24.0	15.0
Miles City	21.5	2.0	23.5	16.5
Missoula	22.0	2.0	24.0	16.0
Boise, Idaho	23.5	2.0	25.5	19.0
Idaho Falls	23.0	2.0	25.0	18.5

PENNSYLVANIA-DELAWARE AND PART NEW ENGLAND

Atlantic Refining Co.

	Gasoline Tank wagon	Gasoline Incids tax of station	Gasoline Service wagon	Kero. Tank wagon
*Pittsburgh, Pa.	18.0	...	23.0	14.0
*Philadelphia	18.0	...	23.0	14.0
*Scranton	18.0	...	23.0	14.0
*Allentown	18.0	...	23.0	14.0
*Altoona	18.0	...	23.0	14.0
Dover, Del.	20.0	2.0	23.0	14.0
Wilmington	20.0	2.0	23.0	14.0
Providence, R. I	19.0	...	22.0	14.0
Springfield, Mass	19.0	...	22.0	14.0
Worcester	19.0	...	22.0	14.0
Boston	19.0	...	22.0	14.0
Hartford, Conn.	20.0	1.0	23.0	14.0
New Haven	20.0	1.0	23.0	14.0

*Pennsylvania tax of 2 cents is collected by the dealer and paid by him direct to the State.

NEW YORK AND PART OF NEW ENGLAND DISTRICT

Standard Oil Co. (New York)

	Gasoline Tank wagon	Gasoline Incids tax of station	Gasoline Service wagon	Kero. Tank wagon
Albany, N. Y.	17.0	...	21.5	13.0
*New York	18.0	...	21.0	13.0
Buffalo	15.0	...	19.0	12.0
Rochester	15.0	...	12.0	12.0
Syracuse	16.0	...	21.0	11.0
Boston, Mass.	17.0	...	20.0	13.0
Providence, R. I.	19.0	...	22.5	15.0
Augusta, Me.	18.0	1.0	20.0	13.0
Manchester, N. H.	18.0	2.0	20.0	12.0
Burlington, Vt.	18.0	1.0	20.0	13.0

*Price in steel barrels.

NEBRASKA

Standard Oil Co. (Nebraska)

	Gasoline Tank wagon	Gasoline Incids tax of station	Gasoline Service wagon	Kero. Tank wagon
Omaha	11.0	...	13.0	11.5
Crawford	17.0	...	....	12.25
McCook	15.0	...	17.0	13.0
Norfolk	14.75	...	16.75	12.0
North Platte	16.0	...	18.0	12.75
Scotts Bluff	17.25	...	19.25	12.25

SOUTHWESTERN DISTRICT

Magnolia Petroleum Co.

	Gasoline Tank wagon	Gasoline Incids tax of station	Gasoline Service wagon	Kero. Tank wagon
Dallas, Tex.	12.0	1.0	16.0	10.0
Fort Worth	10.0	1.0	12.0	11.0
Houston	14.0	1.0	18.0	12.0
San Antonio	13.0	1.0	16.0	10.0
El Paso	12.0	1.0	14.0	12.0
Muskogee, Okla.	14.0	2.5	19.0	11.0
Oklahoma City	14.0	2.5	19.0	10.0
Tulsa	13.0	2.5	16.0	10.0
Ft. Smith, Ark.	17.0	4.0	20.0	12.0
Little Rock	20.0	4.0	23.0	13.0
Texarkana	18.0	4.0	21.0	13.0

CENTRAL SOUTH DISTRICT

Standard Oil Co. (Louisiana)

	Gasoline Tank wagon	Gasoline Incids tax of station	Gasoline Service wagon	Kero. Tank wagon
New Orleans, La.	15.5	2.0	18.5	9.0
Alexandria	17.5	2.0	20.5	13.0
Baton Rouge	16.0	2.0	19.0	11.5
Lake Charles	17.5	2.0	20.5	13.0
Shreveport	17.5	2.0	20.5	13.0
Memphis, Tenn.	16.0	2.0	18.0	14.0
Chattanooga	17.0	2.0	19.0	14.5
Knoxville	19.5	2.0	21.5	15.0
Nashville	18.5	2.0	20.5	13.5
Bristol	20.0	2.0	22.0	13.5
Little Rock, Ark.	20.0	4.0	22.0	13.0

OHIO

Standard Oil Co. (Ohio)

	Gasoline Tank wagon	Gasoline Incids tax of station	Gasoline Service wagon	Kero. Tank wagon
All Ohio points	16.0	...	18.0	14.0

TANK WAGON CHANGES

The following recent changes are reported in the Standard Oil Co. of Indiana territory:

August 20, gasoline service station prices, down 2 cents at Sioux Falls, S. D.; August 26, gasoline tank wagon and service station prices down 3.2 cents at Peoria, Ill., 4.5 cents at Davenport, Iowa, and 4 cents at Keokuk, Iowa; August 30, gasoline tank wagon and service station prices down 2 cents at Fort Wayne, Ind.; Sept. 7, gasoline service station price down 2 cents at Kansas City, Mo.

August 26.—Magnolia Petroleum Co. reduced gasoline service station prices 2 cents at Fort Worth, Texas.

COASTAL PRODUCTION DECLINES IN AUGUST

HOUSTON, Tex., Sept. 8.—The estimated gross production for the Gulf Coast Pools and the southwest fields during the month of August totaled 4,119,745 bbls., a decline of 141,325 bbls. from the July estimate.

In the Gulf Coast pools the total for the month is placed at 2,608,092 bbls., or 73,921 bbls. more than shown for July. Wells in the Orange, Humble, Hull and West Columbia Pools account for the increases.

In the Southwest fields the estimated total is 1,511,653 bbls., a decrease of 225,246 bbls. The Luling Field fell off 230,082 bbls. from the July estimate, while Somerset and Cullham showed increases.

The following table gives the number of wells, daily average, gross production for the month and increase or decrease for each district:

District—	No. Wells	Daily Average	Gross Bbls.
Batson	359	1,685	52,235
Blue Ridge	17	669	20,739
Barber Hill	15	176	5,456
Dayton	10	109	3,379
Damon Mound	29	1,469	45,539
Edgerly (La.)	17	544	16,864
Goose Creek	261	11,190	346,890
Humble	311	7,519	233,083
Hull	239	21,641	670,871
Jennings (La.)	53	614	19,034
Markham	29	177	5,487
Orange	254	12,137	376,247
Pierce Jct.	8	269	8,339
Spindletop	112	939	29,109
Saratoga	269	1,469	45,539
Sour Lake	407	4,481	138,911
Vinton (La.)	103	5,644	174,964
Welsh-Anse Bute	6	90	2,790
West Columbia	113	12,385	383,935
*Miscellaneous	31	925	28 675
Total August	2,643	84,132	2,608,092
Total July	2,596	81,391	2,524,171
Difference	47	2,741	73,921
Southwest Fields—			
Luling	272	40,667	1,260,677
Somerset	299	4 271	130,541
Cullham	236	2,692	83,452
Rockdale-Minerva	33	651	20,181
	189	542	16,802
Total August	1,029	48,763	1,511,653
Total July	993	56,029	1,736,899
Difference	36	7,266	225,246
Grand total Aug.	3,672	132,895	4,119,745
Grand total July	3,589	137,420	4,261,070
Difference	83	4,525	141,325

*Includes High Island, Big Creek, Nacogdoches and other places in South Texas and South Louisiana.

Daily average per well Gulf Coast Pools, 31½ bbls.

Daily average per well Luling Field, 150 bbls.

Daily average per well Southwest Fields, including Luling, 48 bbls.

NEW YORK STATE GASSER

The Republic Light, Heat & Power Co. of Buffalo, N. Y. has completed a well near Dunkirk, N. Y., flowing 1,500,000 feet of gas. It was reported in New York City that the well was making 600 bbls. of oil but it has made no oil. It at first produced a black fluid which was mistaken for oil.

FUEL OIL BRIGHTEST SPOT IN CALIFORNIA

LOS ANGELES, Cal., Sept. 6.—The various California marketing companies report gasoline sales on the Pacific Coast this week to be practically the same as a week ago. There are minor fluctuations in sales due to difference in policy. For instance, some of the larger marketers have been forced to watch their output in the large consuming centers of California and the northwest decline from week to week during the past two months due to the price cutting prevalent among the smaller distributors in California and the intensive selling campaign of two of the more recently established large marketers in the Northwest. All these variations, however, are apparently temporary and local. The gasoline demand as a whole does not show any particular change. The refinery price for the U. S. motor grade is still varying from 11 cents to 12 cents per gallon, deliveries being made at both these prices and several fractions in between.

The absorption gasoline market is somewhat weaker than it has been in recent weeks and prices have been shaded fractionally during the past several days. Instead of being active at from 10½ cents to 11 cents per gallon, absorption gasoline is now somewhat sluggish in spot movement and bids of 10¼ cents to 10½ cents are being readily accepted by the manufacturers in Southern California. This fractional weakening in absorption natural gasoline is the only price change noticeable during the past week.

Engine distillate, as for some time past, is moving through the Canal in considerable quantities under long-term contract. Local sales are decidedly limited. The kerosene market is making up in price what it lacks in volume. The relatively small amount of export water white being moved from California at present is bringing from 5 cents to 5½ cents a gallon. This price is a full cent more than was obtained a few weeks ago.

A somewhat increased demand for the fuel distillates is being noted. This is apparently far-sighted forward buying for winter requirements. While there will be a very ample supply of fuel distillates to take care of any winter demands which may be expected, it is reasonable to suppose there will be a tendency on the part of the refiners to increase prices to whatever the traffic will bear as we get into the fall months. At the present time 33-36 stove distillate can be had from 3¼ cents to 4½ cents per gallon, depending on the boiling range. An excellent straw colored product of about 200° F. initial boiling point and about 550° end point can be had in practically unlimited quantities at present at 4 cents per gallon. Furnace distillate of 27 to 33 A. P. I. gravity is moving at from 3½ cents to 3¾ cents per gallon. The demand for this commodity has not increased as noticeably as has that for the 33-36 distillate.

Fuel oil, which has been showing a slight tendency toward weakness during the past month, has again earned the full confidence of the California refining companies. Its price of $1.40 per bbl. is being well maintained and practically all indications of weakness have disappeared. Fuel oil is without question the brightest spot in the California oil market.

Lubricating oils and greases are holding steady. The prices which have been established since early spring are being maintained despite the fact that the movement of lubricants at the present time is not quite satisfactory.

ASK GAS INCREASE

PITTSBURGH, Pa., Sept. 6.—The Warrendale Oil & Gas Co. has filed with the Public Service Commission application to increase the rate for natural gas from 55 cents to 70 cents per 1,000 feet subject to a discount of 5 per cent. Fowler & Co. have also applied for similar increase.

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SINCLAIR OILS

Predicts Advances in Oil Geology

K. C. Heald, Chairman of the Research Council of the American Association of Petroleum Geologists, Urges Cooperation of Science

By K. C. Heald*
Formerly Geologist in Charge, Section Geology Oil and Gas Fields, United States Geological Survey

The ability of the average oil man to bound from one extreme to another makes a lively rubber ball look like a lead slug. Hardly had the peak of the worst overproduction in years been passed than he began to wag his head and talk of a rapidly approaching shortage of oil. This while we were still putting oil into storage faster than we could take it out. The chances were so much in favor of his being right that it would have been foliy not to take stock and see how such a shortage might be met.

Is a shortage going to come in spite of oil geology? It has been noticeable that geologists have not got hoarse refuting the accusation that they, through development of skill in hunting for fields, are responsible for the overproduction of the past year. Yet one listens in vain for statements that this skill will lead to the discovery of new bonanza fields in time to prevent a shortage.

Does it mean that geologists fired all their heavy artillery ammunition in one tremendous broadside and have nothing but small arms left? Or that all the bonanza fields have been discovered? Or does it mean that the simultaneous development of eight marvelous fields was one of the most astounding coincidences in the history of the search for any mineral, and that oil geology has a long hill to climb before it will reach a stage of development where a similar feat can be performed?

Never More Needed

The writer feels that there has never been a time since geology was first applied to the search for oil when the need for more knowledge was more cryingly apparent. We can proclaim that "we did it" when the wonder fields of 1922 and 1923 are mentioned, but it is safe to predict that not a reputable geologist in the country will stake his reputation that we can do it again. There are too many things we do not know. Some of those things can be revealed only by exploratory drilling, but many of them are just ignorance.

The oil geologist is short on fundamentals. He knows that many things are so, but he does not know why, and without the "why" he must speculate instead of dealing with certainty.

For example, it was long ago learned that oil pools often were found in anticlinal folds. Then it was learned that folds in rocks deep below the surface often conformed only vaguely to those manifested by the surface beds and that as the oil adjusted itself to these deeplying anticlines the structure of the surface beds had to be interpreted in terms of its significance in the deeper rocks.

Some anticlines carry oil on one flank, some on both, some in irregularly distributed patches. The reasons for irregular distribution have been given in few instances, and anticipation of the irregular conditions is practically unheard of. Anticipation will not be possible until we know how and why rocks vary in porosity and texture, why oil migrates and how it does it, how far it will move, what kind of beds it originates in, the time necessary for oil to form, which, in turn, will tell whether it probably migrated during the first period of folding, and finally, the type of matter that oil originates from. Until we can answer this last we cannot answer the preceding query. We can speculate on it but we cannot know. In short, in almost any thorough study looking toward improving the technique of oil finding, the geologist is confronted by a door he cannot open, and the key to that door is knowledge of the genesis and alteration and migration of oil and gas.

There is no reason why oil geology should not make enormous advances, and those soon. The problems that confront us are no more difficult than those that have been successfully solved by economic geologists who have specialized in metallic minerals. To be sure the field of oil geology is much broader than the field of metalliferous economic geology, but consider the relative numbers of geologists at work on the two subjects. There probably are now in the United States as many petroleum geologists as are engaged in all other lines of geologic endeavor.

Nor do the oil geologists have to apologize for past achievement. They can with justice state that they have taken up stratigraphy and the deformation of sediments where other geologists left off, and have gone forward, and that they are responsible for important discoveries and applications of paleontology and petrography, but after all these are contributions to stratigraphy, structural geology, paleontology and petrology. Such contributions are essential, but they will not take the place of knowledge about oil itself and the things oil does.

Preliminary to Research

What can we do about it? Work. Study. Experiment. And most of all get together and improve ideas and theories by discussion, argument, and the accumulated experiences of others. Keep in touch with men and organizations that have facilities for doing what individuals can not. The number of such men and organizations probably is realized by few. Preliminary work by the Committee on Studies in Petroleum Geology of the National Research Council has permitted preparing a list, but this is only a start. Not a third of the colleges and universities of the United States are represented on it. Certainly there is no lack of workers — scientists who will gladly cooperate with the oil geologists. Nor is there lack of incentive, for the rewards, both scientific and financial, for successful work are obvious. If oil geology does not record scientific and economic discoveries during the coming five years that will surpass those of the past five years oil geology and geologists will have failed to grasp an unparalleled opportunity and to meet what is truly their obligation to the Nation and to science.

*Presented before American Association of Petroleum Geologists.

GEOLOGISTS WHO ARE SPECIALIZING ON PROBLEMS RELATED TO PETROLEUM

By Charles E. Kern

WASHINGTON, D. C., Sept. 6.—For the first time the oil industry now has a roster of petroleum geologists who are giving special attention to that subject or who are interested in it more or less in their connection with universities, colleges, foundations, or other similar bodies in the United States and Canada. This information was gathered by K. C. Heald, of the Geological Survey, and chairman of the Research Council of the American Association of Petroleum Geologists. This was one of the outstanding activities of Mr. Heald before leaving the service of the survey to become a member of the faculty of Yale University, of which he is a graduate.

Mr. Heald collected this information by communicating with these several classes of educational institutions, through 119 letters requesting statements of the kind indicated. As a result he has obtained a list of 81 men at work on or interested in one or more studies that have a direct or indirect bearing upon petroleum geology. Many are not actually engaged in petroleum geology, which makes the list of additional interest and shows men who may be available for work directly bearing upon the science in which they are shown to be interested.

Related Inquiries

This list showing the particular work in which these scientists are engaged follows:

Adams, Professor George L., University of Alabama, University, Ala., is working on possible relations between green-sand and the origin and occurrence of petroleum.

Allen, W. E., Scripps Institution for Biological Research, La Jolla, Cal., is working on the biology and chemistry of plankton and especially of phytoplankton. This study may prove to have a direct bearing on the origin of petroleum.

Alling, Prof. Herold L., University of Rochester, Rochester, N. Y., has specialized on the microscopic study of sedimentary rocks.

Bagg, Prof. Rufus M., Lawrence College, Appleton, Wis., is prepared to undertake both investigation in micropaleontology and correlation of sandstone materials from oil and gas well logs. Studies of carbonaceous shales are also contemplated.

Bartell, Prof. P. E., has studied laws controlling migration of fluids through porous bodies.

Bassler, R. S., United States National Museum, Washington, D. C., has specialized on micropaleontology, working particularly with bryozoa and ostracoda. Tertiary and quaternary bryozoa of North America have been monographed. Data for monograph on American Mesozoic and Cenozoic species of bryozoa are being accumulated.

Bauder, Prof. Arthur R., Department of Physics and Electrical Engineering, University of Alabama, University, Ala., is developing electrical method for determining presence of oil by resistance measurements.

Studying Viscosity

Bingham, Prof. Eugene C., Department of Chemistry, Lafayette College, Easton, Pa., has been working on viscosity of petroleum.

Bird, Prof. R. M., University of Virginia, Charlottesville, Va., has in hand problem of association of vanadium with asphalt. Results of past work have been published and plans made for future work.

Bonine, Prof. C. A., Department of Geology, Pennsylvania State College, State College, Pa., is studying the origin of the oil shales of the Steele and Niobrara formations of Wyoming which has necessitated the determination of the nature and manner of occurrence of the organic matter in these sediments.

Bouton, C. M., Pittsburgh Experiment Station, United States Bureau of Mines, has studied thermo-conductivity of coal. This work may have a bearing on earth temperatures as studies deal with coal in place.

Bowie, W. W., United States Coast and Geodetic Survey, Washington, D. C., has specialized on the theory and demonstration of isostasy.

Bradley, Wilmot H., United States Geological Survey, Washington, D. C., is studying the origin and occurrence of oil shale, and its relation to the origin and occurrence of petroleum.

Brand, Dr. Louis, Department of Mathematics, Engineering College, University of Cincinnati, Cincinnati, Ohio, is studying the mathematical theory of elasticity in all its applications to the information of solids, with special reference to geologic problems.

Interested in New Mexico

Branson, Prof. E. B., University of Missouri, Columbia, Mo., has studied the black shales of the Mississippian of Missouri to determine source of carbon con-

(Continued on Page 96)

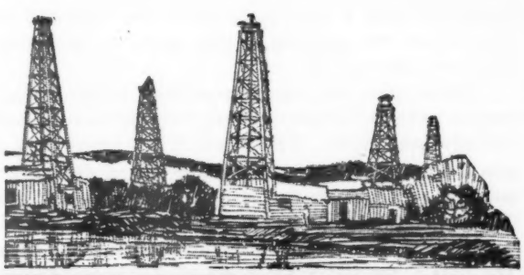
AVERAGE GRAVITY OF MID-CONTINENT CRUDE

The average gravity of crude oil of the Mid-Continent fields carried in The Oil and Gas Journal's weekly estimate follows:

Oklahoma—	
Burbank	38
Tonkawa	42
Other Osage fields	35
Cushing and Shamrock	37
Bristow and Eastern Bristow	30
Cromwell	38
Stroud	42
Northern Miscellaneous	32
Southern fields	31
Kansas—	
Average all fields	32
North Central Texas—	
Average all fields	40
East Central Texas—	
Powell, Richland and Mexia	37
Currie	41
Louisiana—	
Caddo heavy	20.5
Caddo light	40
Pine Island	26
Elm Grove	32
Red River-DeSoto	41
Cotton Valley	28
Haynesville	35
Homer	37
Bellevue	10.5
Arkansas—	
Smackover light	26
Smackover heavy	20
El Dorado	35
Calion	20
Stephens	31
Nevada County	14.5

SAN ANTONIO GAS SUPPLY

SAN ANTONIO, Tex., Sept. 6.—The San Antonio Public Service Co. reports it is now receiving for distribution about 8,000,000 feet of gas a day. W. B. Tuttle, president, predicts a sufficient gas supply will be obtainable for all purposes during the fall and winter so that it will not be necessary to supplement with artificial gas. He points out, however, that a majority of wells in the San Antonio territory are undependable, their production being spasmodic. This company recently completed a replacement project at a cost of $15,000, the work being confined to a 10-mile belt where higher pressure was made possible. It receives gas through pipe lines of the Southern Natural Gas Co. and the Consumers' Gas Co.



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MEMBER AUDIT BUREAU OF CIRCULATION

THINGS ARE BETTER—BUT.

Yes, things are looking better in the oil business,—but remember last fall.

As soon as things began to look better then all of us were "rarin' to go." And we went—with the lamentable results experienced this summer.

The burnt child may dread the fire but it is traditional of the industry that the average oil man is always ready to take another chance. At the very first and faintest sign of a turn in the tide he is poised for a fresh leap forward.

It has been just that indomitable spirit that has kept the world supplied with petroleum products despite unimagined demand, and for the past few years in overwhelming superabundance. Which is exactly the point we are coming to.

During the past week there have been three distinctly cheerful signs in the oil business.

Production for the first time in many weeks showed a decline.

Gasoline stocks were drawn upon in July for 132,000,000 gallons.

Refined output showed a decrease per day in July from June figures while consumption attained record heights.

It is now felt that the worst can be calculated as to production, that with a continuance of caution in crude and refined operations, and a good fall motoring season the industry can see daylight ahead, although yet at a considerable distance.

That is the sanguine side of it, the aspect that so often has hastened the industry into premature activity. But the obstinate fact that should temper untimely optimism is the surplus stock of oil and gasoline. While gasoline stocks were reduced 3,000,000 barrels in July 5,000,000 barrels were added to crude in storage.

We are still far from being out of the woods although we may believe we can see beyond them. The developments are cheering but we must not jump ahead of them.

Taking the most hopeful view of the situation, that production of crude will not reach that of last year, that consumption will show almost a normal gain despite the summer's letdown in general business now picking up again, the dominant factor in the petroleum situation remains to be disposed of, the accumulation of stock during the overproduction of 1923 and the present year.

In that vital respect we are just about where we were last year when the turn came. The difference should be that, whereas we failed then to allow sufficiently for the overhanging stocks in conjunction with possibilities that actually developed, this time we have had a costly object lesson and should be on guard against the mistakes we made then.

We have everything to risk by haste and everything to gain by caution. We can go slowly and be reasonably sure, or we can speed up and go into the same ditch.

Most uncertain and unforseeable of all industries as the oil business is we can at least profit by experience if we will. We may not be able to anticipate or forestall the discovery of new pools but we can, if we must, control the development of them until they are needed. We can regulate our production of refined products to a sane relationship with stocks and anticipated consumption.

We have been doing these of late. The curtailment of unnecessary operations has been fairly general. There has been, according to The Oil and Gas Journal check of refinery runs for September 1, somewhat less of an increase than had been expected.

We can welcome what improvement there is indicated without exaggerating its importance and rushing recklessly ahead. The news makes us feel better and that should be enough for the moment.

It is, after all, but a plain business proposition. When we overproduce, whether crude oil or gasoline, we are playing directly into the hands of those who demoralize our business. The sole remedy is not to overproduce. And overproduction means, not merely constantly mounting output, but any output that prevents withdrawals of stock from that overhanging surplus which is the real cause of our difficulties.

The industry in another month or so will enter upon the period of declining consumption. The peak of the market will be past for another year. There is no reason to assume that stocks will be reduced to what may be considered normal this year. Upon the extent to which they are reduced will depend largely the date when we can resume our forward movement.

Before that happens there will probably be variations in production but, unless all present knowledge is mistaken, we can feel reasonably assured that we know the worst.

From present indications production this year, for the first time in 18 years, may show a decline. Ordinarily that would be sufficient to start another wild scramble for oil but it should not, if we keep the surplus steadily in mind.

Last fall everything pointed to a much greater decrease in production in 1924 than anything we are now likely to realize. Those very indications set afoot the activities which upset all calculations and made 1924 almost a duplicate of 1923. We must avoid making 1925 another 1924.

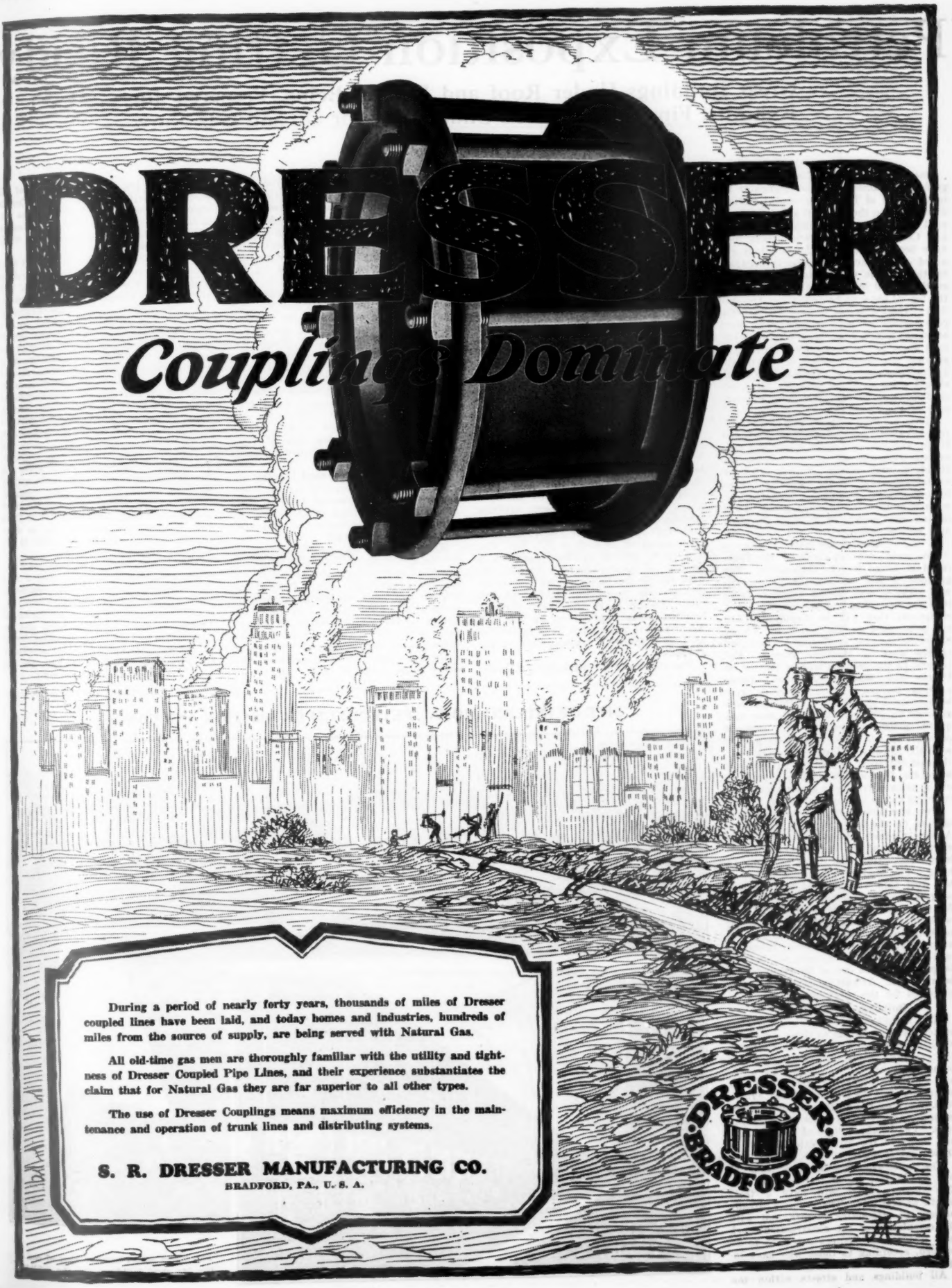
The petroleum industry has had a succession of bad years, due wholly to its own overproduction. With each decline in output there has been a rush to forestall the expected shortage with the like result—the opening of new pools or sands which quickly overwhelmed the market.

Each time, too, there have been belated efforts to curtail the output when it seemed getting beyond control but the damage has already been done. This time, if we profit by experience, we can put a stop to these recurring periods of depression by a resolution to keep our eyes on the surplus and guide our efforts accordingly.

It will be difficult, no doubt, but it is our only hope of regaining and keeping prosperity in the oil industry. If we had to go through the past three years again we should act differently. We cannot, of course, alter what is past, but we can avoid giving ourselves cause for similar vain regrets at the close of 1925.

If we take this matter to heart and resolutely keep control of the situation there is every reason to look forward to a good year for the oil business next year. The industry certainly needs it. It can have it by being cautious.

So, while we can rejoice over the more cheering indications in the news of the week, let us keep our foot on the brake, our hand on the throttle and our eyes on the road.



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Petroleum Exposition Getting Ready

Great Buildings Under Roof and Booths Being Prepared for Exhibits. Final Preparations Under Way for Oil and Gas Show

By Ralph T. Paker

One of the busiest 7-acre tracts of ground in Oklahoma is the triangular lot in the heart of Tulsa's industrial section, which will be the scene of the second annual International Petroleum Exposition and Congress. For several weeks men have been at work on the buildings situated on this acreage, formerly occupied by the Prairie Oil & Gas Co., and recently turned over to the Exposition for the big oil show to be held there, October 2-11. Contracts were then let for the construction of several additional steel buildings which have been erected. The final steps in the work of completing the grounds are under way and the booths are being prepared for the exhibits which should begin to arrive in a few days, according to E. F. McIntyre, general manager of the Exposition.

Three hundred and seventy-five exhibitors have been assured space at the Exposition, and they will show everything connected with the oil industry from the standard and rotary drilling rigs in actual operation, to the specially refined by-products of petroleum, including all equipment involved in every phase of the oil industry, second in value of its products in the nation.

Appropriate Site

No more appropriate site in Tulsa could be found for the Exposition. The grounds lie just north of the Frisco railway right of way, giving adequate facilities for switching and moving the heavy equipment that will be displayed. The lot is bounded on the north by Archer Street on the east by Peoria Avenue, and on the west by Madison Avenue. Entrances to the grounds will be located on Peoria and Madison Avenues. Ample parking facilities for automobiles have been secured by leasing the Barton show grounds on Peoria, which will have adequate police protection. An inclined passageway has been built up to a level with the railway and across the tracks to the east entrance. Street car patrons will leave the Peoria cars on the north side of the railway tracks by a platform which connects to the east entrance also.

Two standard steel derricks have been erected on the north side of the Peoria Avenue viaduct between which the large electric sign of the International Petroleum Exposition and Congress will be hung. The Madison Avenue entrance on the west side will be used for bus passengers from the downtown district and for automobile passengers and those who walk to the grounds. No facilities for parking automobiles are afforded patrons arriving at this entrance. Four turnstiles will be utilized at each entrance and one large exit at each end of the grounds will be arranged. Attractive arches are being prepared for the entrances.

Buildings Almost Ready

Nine buildings, four brick and five steel structures, in addition to three structural steel arcades will be utilized to house the exhibits. Finishing touches are now being made on the buildings and water and gas lines are being laid to the new structures for the benefit of the exhibitors. Work on the booths and decorations is now under way in some of the buildings. The booths will be of varying size, and many of the larger exhibits will be shown out of doors.

The buildings vary in size from 35 feet by 65 feet to 60 feet by 380 feet. The three arcades will have a total length of 580 feet. The grounds already present an attractive picture and with the completion of the construction work now under way, visitors are sure to be pleased, according to those who have inspected the grounds already.

All buildings and streets within the grounds are named after the oil producing States. At the northwest corner of the grounds is situated the Kansas building, a brick structure, 55 feet by 135 feet, which will house the heavy oil well machinery. Other heavy oil field equipment will be displayed in the open space about this building. Adjoining is the Ohio building, another brick structure, measuring 55 feet by 100 feet, which will contain several types of oil field engines in operation, wire rope exhibits, pipe machines, lathes and additional production equipment. Connecting with it is the Kentucky building, the smallest brick structure on the grounds, measuring 35 feet by 65 feet, nearly all of which will be occupied by a single exhibitor displaying practically every kind of equipment used in the production of oil and gas.

To Have 427 Booths

East of this building is the California building, a brick structure measuring 60 feet by 125 feet and devoted exclusively to the displaying of refined products. Near the west gate is the New York building, measuring 60 feet by 150 feet, which will contain the general exhibits, running the list of every branch of the industry. Near it is the Louisiana building, measuring 30 feet by 175 feet, also devoted to general exhibits, including a number of heavy articles. It connects with the Texas building, the largest on the grounds, measuring 60 feet by 380 feet. Facing it is the West Virginia building, measuring 60 feet by 200 feet. An attractive brick office building will be used as Exposition headquarters on the grounds.

The arcades run along Indiana, Illinois, and Oklahoma Avenues, beginning at a point 75 feet within the Peoria Avenue entrance and extending 280 feet west, then 100 feet south and then again 210 feet west. All exhibits in the arcades face toward the open air displays of heavy machinery which will be grouped generally at the eastern end of the grounds.

A total of 427 booths of all sizes have been arranged for the various buildings and arcades, in addition to the scientific and technical museum, and the governmental and State exhibits which will take up the entire space in the Wyoming building. An open air theater is ready for the Exposition revue and an auditorium is nearing completion alongside. Practically all of the recently constructed buildings are made of steel and corrugated iron, only a few of the smaller auxiliary structures being made of wood, thus insuring a minimum amount of danger from fire.

Scientific and Technical Display

The concrete foundations for the heavy engines have been poured and the work of laying the crushed stone walks and oiling them will be completed soon after the exhibits are in place.

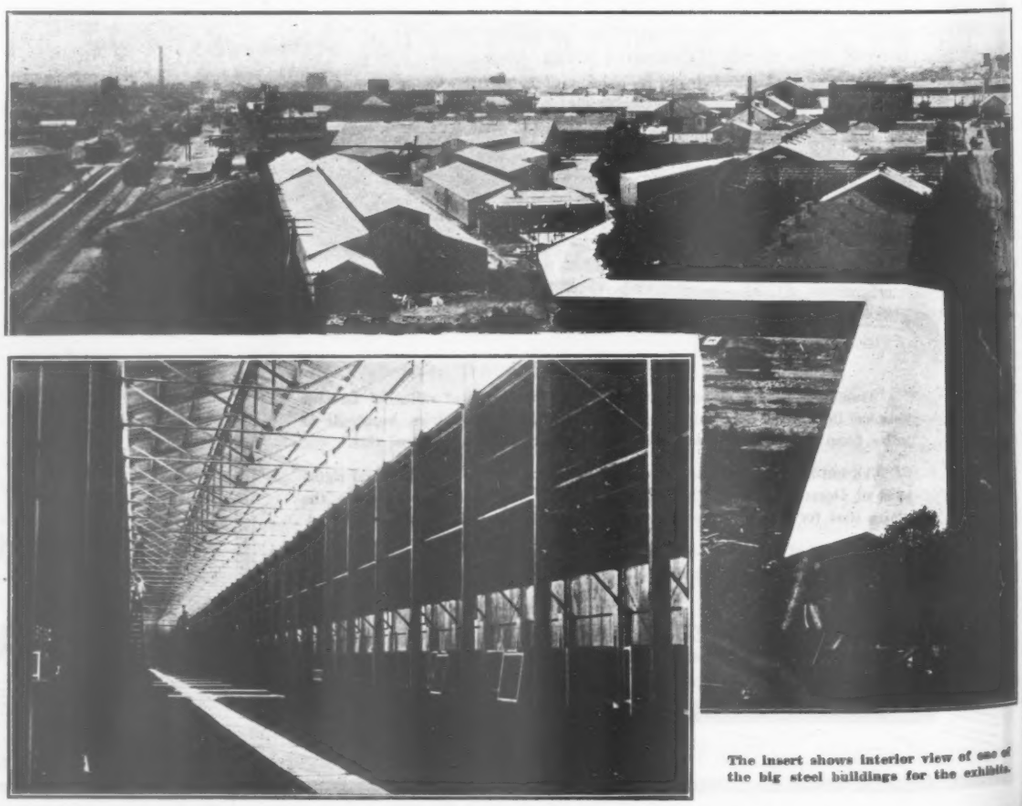
The building for the scientific and technical exhibits is ready for the great array of interesting material which will find its place within its walls. These exhibits are being assembled through the cooperation of the larger operating companies of the United States in connection with the scientific and technical committee of the Exposition. Samples of shale and sand, petroleum samples from many fields, charts of fields, diagrams of formations, peg models of some of the more famous fields, logs of many famous wells and thousands of photographs covering every phase of field operations in all oil producing countries of the world will be included.

Chemists will be seen at work on some of the more important tests on petroleum and refined products in connection with the technical exhibit. One of the special features of this part of the Exposition will be the exhibits prepared by the United States Government and several of the oil producing States, showing the part they are playing in the work of oil production. The petroleum division of the Department of Commerce, established in the interests of the oil producers and marketers at home and abroad, which is particularly concerned with the regulation of international oil relations, will bring a large exhibit of maps and charts and many valuable photographs. The United States Bureau of Mines and the Geological Survey can also be counted upon to bring many valuable technical displays. The early-day petroleum relics displayed at the 1923 Exposition in Tulsa will be returned in addition to other articles which are to be added to the Museum of Petroleum.

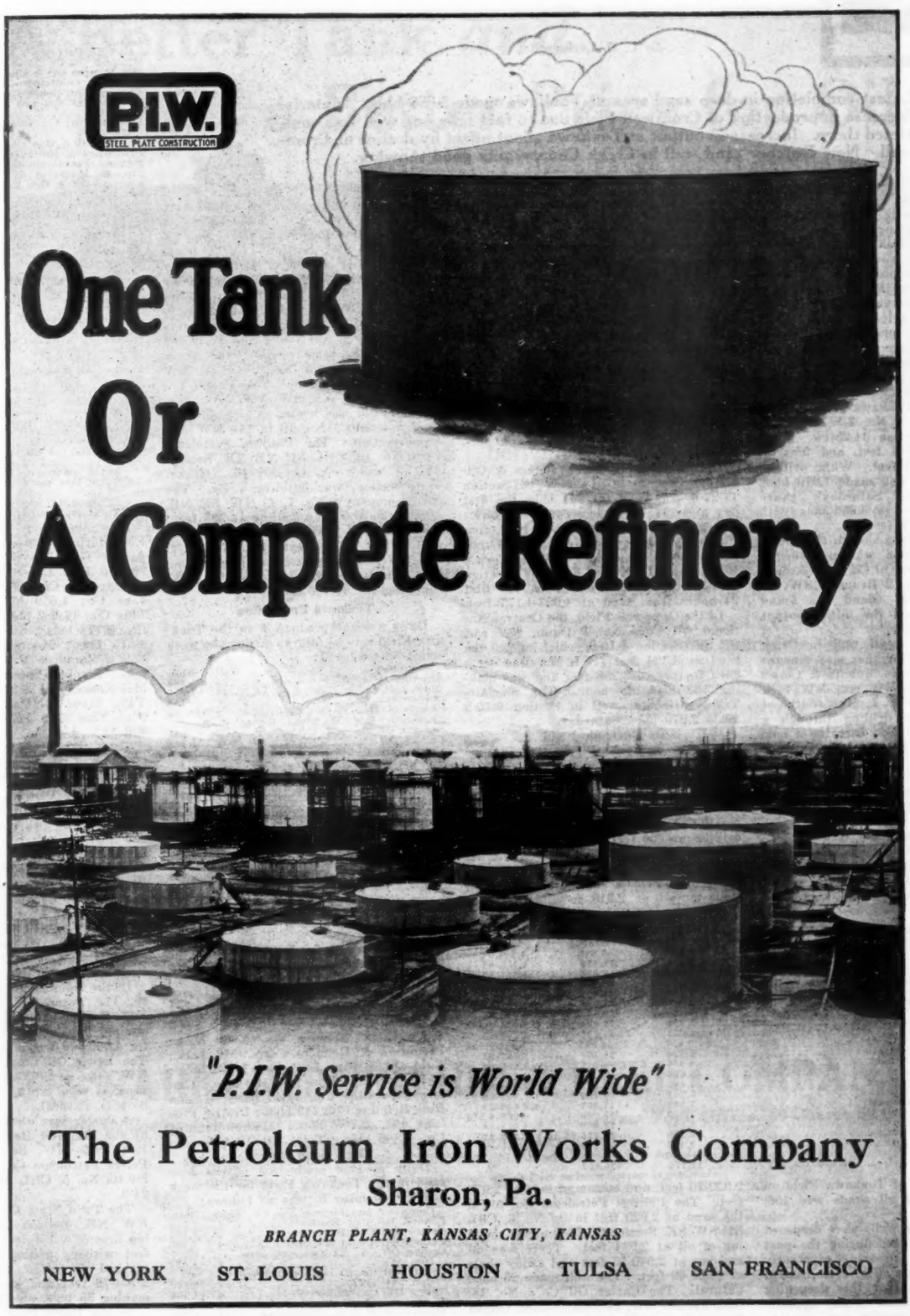
While workmen are busy on the Exposition grounds, a committee and a corps of workers is busy with the preparatory work of housing the 200,000 visitors expected to attend the big show during the 10-day period. Entertainment and accommodations are being provided for all exhibitors and those who will accompany the exhibits. A dining hall and an

(Continued on Page 106)

SITE OF INTERNATIONAL PETROLEUM EXPOSITION AND CONGRESS



The insert shows interior view of one of the big steel buildings for the exhibits.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Oklahoma Field Operations

By C. D. Lockwood

Latest completion in deep sand area at Tonkawa made 5,656 bbls. Material decrease in production of Cromwell Field due to fact only one well was completed there. Increase in output at Tonkawa about offset by decline at Cromwell. New Dutcher sand well in Creek County gets good showing.

If the old reliable Tonkawa Field had not come through with its twentieth deep sand producer shoving the daily gauge of the Wilcox horizon producers up to 81,176 bbls., there would be little news of importance to report from the Oklahoma fields covering the past week. The Cromwell Field, however, deserves some mention, because of its slump to 45,928 bbls. on Saturday, practically a 15,000 bbl. drop. This may mean that Cromwell will never reach 100,000 bbls. in spite of the large number of wells due in there before the close of the year.

The latest deep Tonkawa producer was the Comar Oil Co.'s No. 7-W Endicott, CSW NE SE, Section 34-25-1w. Sand was topped at 4,044 feet, and first oil was found at 4,045 feet. While drilling at 4,059 feet, the well made 1,970 bbls. in 16 hours, and Saturday's gauge showed a production of 5,656 bbls. with total depth at 4,075 feet.

Out of three wells added to the Cromwell Field, only one was noteworthy. That was the Carter Oil Co. and Gardner Petroleum Co.'s No. 2 Bruner CSW SE SW, Section 9-10-8. Sand was found at 3,408-43 feet and the initial output was 45 bbls an hour.

A new Dutcher sand well in Creek County had a showing that may amount to something. It was Mounts & Clay's No. 1 Montgomery, SW cor. NW SW, Section 21-15-9, about 7 miles southeast of Bristow. After drilling through a sand at 2,695-2,770 feet, carrying a hole full of water, the bit reached the Dutcher at 3,105 feet and then about 200 feet of cable broke off and the fishing job ensued. There was said to be no gas, but about 200 feet of oil was standing in the hole.

Tonkawa Deep Sand Output.

Following is a table showing the total production of Tonkawa deep sand producers to September 2, the sand record of each and Saturday morning's gauge.

Company, No., Farm—	Saturday Gauge (Bbls.)	Total Prod. Wk. Sept. 2 (Bbls.)	Sand Record (Feet)
Wentz Oil 18 McKee	4,806	7,646	4,201.08
Wentz Oil 45 McKee	10,126	71,419	4,155-67
T. B. Slick 1-E E. Endicott	3,290	18,025	4,041-87
T. B. Slick 5-E E. Endicott	2,420	21,732	4,020-47
Blackwell O. & G. Co. 1-C McDaniels	5,191	41,673	3,975-95
Gypsy Oil 81 Shawver	3,800	24,875	4,132-51
Gypsy Oil 83 Shawver	5,400	36,746	4,020-52
Gypsy Oil 84 Shawver	3,335	17,430 (5 da.)	3,985-4,018
Gypsy Oil 85 Shawver	4,637	17,181 (4 da.)	4,145-75
Comar Oil 1-W E. Endicott	3,857	34,097	3,905.4,000
Comar Oil 5-W E. Endicott	3,820	29,492	3,969-98
Comar Oil 6-W E. Endicott	4,900 (3 da.)	12,027	3,969-98
Comar Oil 7-W E. Endicott	5,656	.....	4,044-76
Comar Oil 1-W L. Endicott	4,403	35,271	3,950-80
Comar Oil 1-W Beverlin	5,283	39,795	4,143-66
Comar Oil 4-W Carmichael	1,952	17,359	4,149-79
Pennok Oil 1-D Endicott	1,900	18,000	4085-4,113
Pennok Oil 4-D Endicott	1,800	17,800	4,013-40
Pennok Oil 5-D Endicott	4,200	15,825 (5 da.)	4,110-22
Pennok Oil 7-D Endicott	2,400	20,300	4,141-62
Total, 20 wells	81,176	496,693	

Total production of Tonkawa Field on Saturday, including all sands was 106,743 bbls.

Nine of the above wells were deepened from one to three feet during the past week, and others are being constantly agitated. In the opinion of some careful observers, the fact that this deepening campaign did not result in any appreciable increase in production may point to the beginning of the decline which is expected in all Wilcox sand pools to be sharp when it sets in. Inasmuch as the whole crude situation in Oklahoma hinges on the Tonkawa deep sand, this attitude may be the result of optimism and may be more of a hope than an expectation The next few days will about tell the story as several wells are due in. If they are comparable with the previous completions and if the original 20 producers continue to hold up, the outlook for relief will be black, indeed.

The Mid-Kansas Oil & Gas Co.'s No. 1 in the SW of Section 21-25-8, was drilled about 6 inches deeper to 2,691 feet and with the tools still in the hole started off at 320 bbls. an hour.

In Grant County, the Blackwell Oil & Gas Co.'s No. 1 Lane, NE cor. Section 22-27-3w, was shot with 15 quarts in sand at 2,960-75 feet, with total depth at 3,040 feet, and swabbed 170 bbls. in about 4 days.

In the Burbank Field, Peters & Oliphant's No. 2, in the NW of Section 17-27-6, was good for 541 bbls. the first day and 157 bbls. the second 24 hours.

A good well for the Stroud Pool, considering the dropping production of that field was the Amerada Petroleum Corp.'s No. 7 Lewis, NE cor. NW SW, Section 7-14-7, which made 885 bbls. the first 24 hours from sand at 4,093-4,175 feet.

In the Cromwell Field, the Central National Oil Co.'s No. 1 Dunn, SW cor. SE SE, Section 4-10-8, which topped the sand at 3,324 feet (S. L. M.) was deepened further to 3,398 feet and was making 160 bbls. an hour. The Sinclair-Transcontinental well in Section 9-10-8 made 2,970 bbls. Saturday.

In Burbank Field

In the Burbank Field, the Phillips Petroleum Co. was spudding its No. 6, C NE SW NE, Section 18-27-6, and was drilling at 275 feet in its No. 6, C NE SW NW, same section. The Texas Co.'s No. 7, C NW SE NW, same section, was drilling at 260 feet.

The Kewanee Oil & Gas Co.'s No. 12, C SW NE SE, Section 18-27-6, was good for 30 bbls. after a shot of 130 quarts in sand topped at 2,910 feet, with oil at 2,922-70 feet, and bottom of hole at 2,978 feet. The Phillips Petroleum Co. found the sand at 2,929 feet in its No. 5, CSL SE SW SE, Section 20-27-6, and a showing of oil at 2,934 feet. There was oil and gas at 2,940-55 feet and sandy shale at 2,955-60 feet. The well made 25 bbls. natural. The Carter Oil Co.'s No. 14, CSL SE SW SW, Section 16-26-6, topped the sand at 2,900 feet and found oil at 2,935 feet, making 75 bbls. naturally. It was shot with 120 quarts and responded with 321 bbls. the following 18 hours. The same company's No. 10 C NE SW SE, same section, was good for 100 bbls. naturally from sand at 2,887-2,940 feet, increasing to 563 bbls. after a 120-quart shot.

The Phillips Petroleum Co.'s No. 11, C SW NE SW, Section 11-27-5, made 500 bbls. after a shot of 120 quarts in sand at 2,931-84 feet. The same company was drilling at 220 feet in its No. 2. CSL SE SW SE, same section; No. 5, CWL NW SW SE, was spudding; rigs were completed for Nos. 8 and 12 in the east half SE, same section; and a rig was being built for No. 15, CNL NW NE SE, same section. The Carter Oil Co.'s No. 9, CWL SW NW NW, Section 13-27-5, was a rig, as was also the same company's No. 10 in the NW cor. same section. The Phillips Petroleum Co.'s No. 12, CEL SE NE NE, Section 14-27-5, was a rig, and No. 16, NE. cor. same section, was building a rig. The same company's No. 7, C NW SE NE, Section 26-27-5, was drilling at 295 feet; No. 6, C NW SW NE, Section 18-27-6, at 540 feet. The Texas Co.'s No. 6, C NE SW NW, same section, was drilling at 850 feet, and No. 7, C NW SE NW, same section, at 760 feet.

Tonkawa Production

Daily average production in the Tonkawa Field was as follows during the week ended September 3:

Company—	Wells	Bbls.
Amerada Petroleum Corp.	35	1,356
Blackwell Oil & Gas Co.	32	7,173
Carter Oil Co.	5	192
Champlin Ref. Co.	2	35
Champlin Ref. Co. and Twin State Oil Co.	1	46
Comar Oil Co.	334	35,568
Cosden Oil & Gas Co. and Marland Ref. Co.	16	393
Gypsy Oil Co.	98	17,236
Healdton Petroleum Co.	27	1,561
Wentz Oil Corp.	44	13,319
McMan Oil & Gas Co.	2	5
Pennok Oil Co.	37	10,995
Phillips Petroleum Co.	2	108
Prairie Oil & Gas Co.	12	513
Sinclair Oil & Gas Co.	1	19
Slick-Comar Oil Co.	31	7,456
Southwestern Petroleum Co.	16	645
The Texas Co.	5	59
White Eagle Oil & Ref. Co.	7	183
Total	707	96,891
Total last week	702	*84,615
Difference	5	12,276

Daily average pipe line runs from the field during the week follow: Kay County Gas Co., 24,816 bbls.; Ozark Pipe Line Co., 1,080 bbls.; Gulf Pipe Line Co., 16,508 bbls.; Champlin Refining Co., 16,657 bbls.; Bolene Refining Co., 1,003 bbls.; Globe Refining Co., 5,000 bbls.; Producers & Refiners Corp., 513 bbls.; Enid Oil & Pipe Line Co., 1,502 bbls.; Oklahoma Pipe Line Co., 192 bbls.; Empire Pipe Line Co., 1,643 bbls.; Golden Rule Refining Co., 345 bbls.; Prairie Pipe Line Co., 2,700 bbls.; Moore Refining Co., 4,860 bbls. Total, 76,819 bbls.

Deep Sand Output

Daily average production of the deep sand in the Tonkawa Field for the week ended September 3, was as follows:

Company and lease—	Wells	Bbls.
Pennok Oil Co., Endicott	4	9,704
Comar Oil Co., Beverlin	1	6,685
Comar Oil Co., Carmichael	1	2,480
Comar Oil Co., L. Endicott (Section 35)	1	5,039
Comar Oil Co., E. Endicott (Section 34)	3	10,340
Gypsy Oil Co., Shawver	4	14,204
T. B. Slick, L. Endicott	2	5,679
Blackwell O. & G., McDaniel	1	5,943
Wentz Oil Corp., McKee	2	11,260
Total	19	70,834

One well on the Pennok lease had been producing for only five days, one on the Comar Oil Co.'s E. Endicott lease for only three days, one of the Gypsy lease for four days and another for five days, and one well on the Wentz lease for only three days.

Burbank Production

In the Burbank Field, daily average production for the week ended September 3 was as follows:

Company—	Wells	Bbls.
Carter Oil Co.	189	7,441
Comar Oil Co.	7	311
Cosden Oil & Gas Co.	104	4,146
Devonian Oil Co.	16	361
Gardner Petroleum Co.	20	880
Gypsy Oil Co.	196	7,370
Kewanee Oil & Gas Co.	24	941
Laurel Oil & Gas Co.	16	308
Lorraine Petroleum Co.	15	270
Midland Oil Co.	37	3,066
Mid-Kansas Oil & Gas Co.	39	2,100
Peters & Oliphant	1	126
Phillips Petroleum Co.	71	7,542
Phillips Pet. Co. and Delmar Oil Co.	16	2,835
Phillips Pet. Co. and Skelly Oil Co.	172	6,096
Prairie Oil & Gas Co.	106	3,643
Producers & Refiners Corp.	29	434
Roxana Petroleum Corp.	67	920
Simons, Moore et al	29	353
Sinclair Oil & Gas Co.	145	3,839
Skelly Oil Co.	21	1,285
Tidal-Osage Oil Co.	43	881
Twin State Oil Co.	24	1,692
Total Burbank proper	1,377	57,096
Total last week	1,374	57,461
Difference	3	440

Kay County Extension

George S. Bole	3	711
Carter Oil Co.	11	1,483
Comar Oil Co.	19	1,290
Cosden Oil & Gas Co.	16	1,589
Gypsy Oil Co.	18	831
Laurel Oil & Gas Co.	3	423
Phillips Petroleum Co.	31	3,949
Mid-Kansas Oil & Gas Co.	10	1,310
Prairie Oil & Gas Co.	4	323
Pure Oil Co.	5	344
Roxana Petroleum Corp.	8	493
Dye, Tomlinson et al	8	691
Skelly Oil Co. and Phillips Pet. Co.	20	554
Sinclair Oil & Gas Co.	5	670
The Texas Co.	16	473
Twin State Oil Co.	15	851
Total extension	192	16,021
Total last week	192	16,522
Difference	None	501
Total Burbank	1,569	73,026

Pipe line runs from the Burbank Field during the week averaged as follows daily: Gulf Pipe Line Co., 9,748 bbls.; Cosden Pipe Line Co., 7,424 bbls.; Kay County Gas Co., 6,508 bbls.; Osage Pipe Line Co., 1,059 bbls.; Oklahoma Pipe Line Co., 17,582 bbls.; Prairie Pipe Line Co., 5,773 bbls.; Sinclair Pipe Line Co., 4,515 bbls.; Moore Refining Co., 1,814 bbls.; Standish Pipe Line Co., 10,399 bbls.; Empire Pipe Line Co., 1,151 bbls.; Mid-Kansas Oil & Gas Co., 3,488 bbls.; Twin State Oil Co., 1,680 bbls.; Ozark Pipe Line Co., 1,885 bbls. Total, 73,026 bbls.

Total storage in the Burbank Field at the close of the week was 12,683,433 bbls., a decline of 13,559 bbls.

Hominy District, Osage County

The Kewanee Oil & Gas Co.'s No. 13, CEL SE NE SE, Section 18-27-6, made 225 bbls. following a shot of 120 quarts in sand at 2,918-72 feet. The Phillips Petroleum Co.'s No. 5, CSL SE SW SE, Section 20-27-6, was a 50-bbl. well when shot with 90 quarts in oil sand at 2,929-59 feet. The Carter Oil Co. jazzed up its No. 14, CSL SE SW SW, Section 16-26-6, with 120 quarts in oil pay at 2,945-64 feet, resulting in an increase from 75 bbls. to 400 bbls.

In the Hominy district of Osage County, The Texas Co.'s No. 7, CWL NW NE, Section 29-25-8, topped the Mississippi lime at 2,391 feet and was good for 4,500,000 feet of gas at 2,400-03 feet. The Lewis Oil Corp.'s No. 1, CEL NE NW, same section, an old well, found the Burgess sand at 2,418-25 feet good for 65 bbls. natural.

A duster was abandoned at 2,361 feet by the Marland Refining Co. in its No. 1, C NE NW, Section 10-24-9. The Peters Petroleum Co. had a rig in place for its No. 5, CEL SE NW, Section 33-24-9.

The Twin State Oil Co.'s No. 7, CWL NW NE, Section 13-23-8, topped the big lime at 2,251 feet and went to 2,823 feet without finding anything. It was plugged back to the Bartlesville at 2,104-78 feet and shot with 150 quarts making 30 bbls. on the swab.

In the Pettit Pool, the Red Bank Oil Co.'s No. 5, CSL SE SW, Section 20-23-8, was a 17-bbl. well after a 60-quart shot in sand at 914-32 feet.

The Plymouth Petroleum Co. abandoned its No. 1, CNL NW NW, Section 34-22-9, as dry at 2,253 feet.

Breene and others shot their No. 1-A,

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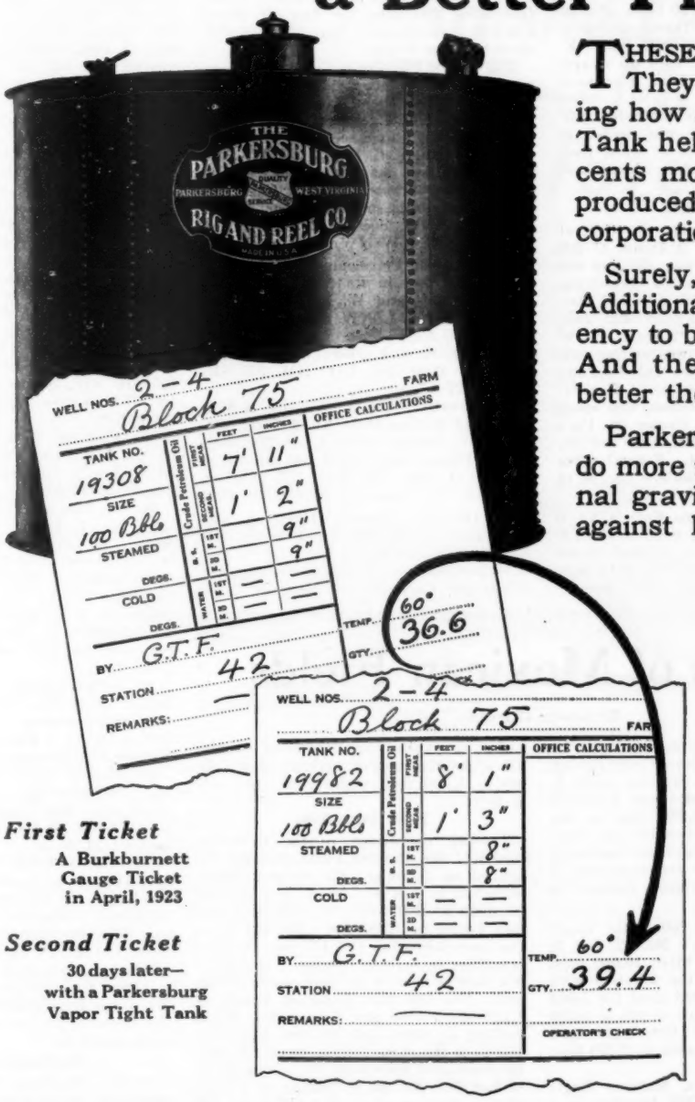

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CSL SW SW, Section 14-21-10, with 110 quarts in the Peru sand at 1,655-82 feet and it made 486 bbls. in 45 hours afterward. Initial natural production for 12 hours was 135 bbls. The same interests' No. 2, NE cor. SE NE, Section 22-21-10, was good for 45 bbls. natural in the Peru sand at 1,654-78 feet. No. 1, CNL NW NE, Section 27-21-10, was drilling at 185 feet.

Pawnee County

In Pawnee County, the Magnolia Petroleum Co.'s No. 2 Sharp, NW cor. SE, Section 8-20-6, was drilling at 1,720 feet. The Jim Glenn Oil Co.'s No. 3 Burgman, NW cor. NE SE, Section 16-20-6, was drilling below 1,050 feet.

The Magnolia Petroleum Co.'s No. 1 Burgman, NE cor. NW SE, Section 16-20-6, produced 140 bbls. after a 60-quart shot in sand at 3,058-3,106 feet. Privett & Sloan's No. 1 Jackson, SE cor. SW NE, same section, was drilling at 150 feet. The Magnolia Petroleum Co. was rigging up tools to deepen an old well, its No. 1 Lesher, SE cor. NE, Section 21 20-6, old total depth having been 2,798 feet. The Fern Oil & Gas Co.'s No. 1 Lesher, SW cor. NW, Section 22-20-6, was making 35 bbls. from oil sand at 3,098-3,116 feet. The Westerly Oil Co.'s No. 2 Smith, NW cor. SW, Section 22-20-6, was shut in for 8,000,000 feet of gas in sand at 3,082-3,135 feet, and spraying a very little oil.

Six rigs were being built or were completed for new tests in Sections 8, 9, 16 and 17-20-7. Ed Reese and others' No. 1 Van Eman, NE cor. Section 17-20-7, was making 490 bbls. natural from sand at 2,606-38 feet, and was to be shot.

In Payne County, the Josey Oil Co. had a rig up for its No. 5 Lee, SE cor. Section 35-19-5.

In the southern part of the county, Hughes and others were fishing at 435 feet in their No. 1, SW cor. NW, Section 1-17-5.

In northern Lincoln County, the Day Oil Co. was rigging up tools for its No. 1 Briggs, SE cor. Section 23-16-6.

Creek County

In Creek County, the Shaffer Oil & Refining Co.'s No. 1 Ross, SW cor. Section 13-19-8, was a 20-bbl. well from oil sand at 2,653-2,720 feet. The same company was rigging up tools for its No. 2 Ross, NW cor. SW, same section. The Selby Oil & Gas Co.'s No. 1 Barnett, SE cor. NW, Section 31-19-9, made 60 bbls. of oil and 10 bbls. of water from oil sands at 3,069-75 and 3,085-3,105 feet.

Tim Cushing and others were moving in a rig and tools for their No. 1 Crabtree, C south half NE, Section 11-17-8. The Aztec Oil Co. was drilling at 1,625 feet in its No. 1, SW cor. SE SE, Section 14-17-8. The Olean Petroleum Co.'s No. 5 Washington, SW cor. SE SW, Section 32-17-8, was estimated good for 100 bbls. from sand at 3,448-77 feet. It was due to be shot.

The H. F. Wilcox Oil & Gas Co. and Whitten were drilling at 850 feet in their No. 1, C SE NW NE, Section 11-17-10. Hiram C. Wilson was drilling below 1,700 feet in his old well, No. 2 Buck-trot, CSL NE NW NW, Section 35-17-10.

The Devonian Oil Co. plugged its No. 3 Ralston, CNL NE SE SE, Section 9-16-10, as a failure at 2,847 feet.

In the SE cor. SW NE, Section 13-14-8, C. G. Tibbens was building a rig for his No. 3 Sewell.

In the western part of Tulsa County, W. W. Harters and others abandoned their No. 1, SW cor. SE, Section 2-19-10, as dry at 2,560 feet. Swoveland's No. 1 Gooden, SW cor. NE, Section 1-19-10, was another failure, plugged at 2,525 feet. Kistler & Crocksen had a rig up for their No. 1 Cooper, SE cor. Section 28-19-10.

Papoose Pool

Some new work was under way in the northeast extension of the Papoose Pool due to the showing made by T. B. Slick's good well in Section 35-10-9. Slick was building a rig for his No. 1 Dunson, C SW SW NE, same section, and the Kingwood Oil Co. was erecting one for No. 2 Sand, C SW SW SW, same section. C. L. McMahan also had a rig up for his No. 1 Dunson, C SE SE NW.

In Section 2-9-9, Slick had completed a rig for his No. 1 Bruner, NW cor., and was building another for his No. 2 Grayson, C NE NW NE, Section 3-9-9. The Kingwood Oil Co.'s No. 5 Davis, C NE SW SW, Section 3-9-9, made 546 bbls. natural from sand at 3,295-3,320 feet. The Papoose Oil Co.'s No. 10 Alexander, C NW NE SE, Section 4-9-9, was a 20-bbl. well in sand at 3,324-44 feet. The Foster Investment Co.'s No. 1 Tiger, C SW SW NE, same section, produced 805 bbls. initially from sand at 3,325-28½ feet. The same company's No. 2 Tiger, C NW SW NE, same section, made 430 bbls. from sand at 3,080-85 feet. Their No. 2 Tiger, C SW NW NE, same section, was worth only 70 bbls. in sand at 3,309-36 feet. The Transcontinental Oil Co.'s No. 2 Tiger, C NE SW NE, Section 4-9-9, was shot with 40 quarts and responded with 160 bbls. from sand at 3,304-26 feet.

The Josey Oil Co.'s No. 1 Manley, SW cor. NE, Section 22-9-9, was drilled to 3,401 feet in sand topped at 3,382 feet, and yielded 30,000,000 feet of gas and 60 bbls. of oil.

Cromwell Field

In the Cromwell Field, the Central National Oil Co.'s No. 2 Dunn, C SE SE SE, Section 4-10-8, was cleaning out at 505 feet. The Amerada Petroleum Corp.'s No. 1 Starr, C SE SW NW, Section 9-10-8, was drilling at 425 feet. The same company's No. 2 Starr, C SW SW NW, same section, was setting surface casing. The Carter Oil Co. and Gardner Petroleum Co.'s No. 4 Bunner, C NW SE SW, same section, was spudding at 105 feet. The Carter Oil Co.'s No. 1 Hill, C NE NW NE, same section, was spudding at 55 feet. Several other wells were drilling at shallow depths in the north part of the field.

The Amerada Petroleum Corp.'s No. 6 Bruner, C SE NW SE, Section 16-10-8, was drilling at 3,556 feet in sand topped at 3,520 feet and was flowing 17½ bbls. an hour. Same company's No. 7 Bruner, NW cor. SE, same section, was swabbing 50 bbls. daily from sand at 3,512-20 feet. The rig for Berry Petroleum Co.'s No. 4 Yarhola, NE cor. NW NE, Section 22-10-8, was abandoned.

In northern Seminole County, H. H. Taylor and others were building a rig and had some tools for No. 1, C NW SW SE, Section 35-9-6.

Holm & Jarvis were drilling at 613 feet in their No. 1, C NE SE NE, Section 7-9-8.

Wewoka Field

In the west part of the Wewoka Field, the Dixie Oil Co.'s No. 1 Ligon, C SW SW SE, Section 25-8-7, topped the sand at 2,850 feet and at total depth of 2,861 feet made 280 bbls. the first 24 hours and 232 bbls. the next day. It was also showing some water.

The Berry Petroleum Co. was moving out a rig for its No. 2, C SW SW SW, Section 1-8-8. The Roxana Petroleum Corp. was building a rig for its No. 1, C SW SE SW, same section. The same company's No. 1, C NW NE NW, Section 12-8-8, was making 40,000,000 feet of gas and 368 bbls. of oil at latest report. A rig was moving in for No. 2, C NE NW NW, Section 12-8-8, and for No. 3, C NW NW NW, same section.

The Gardner Petroleum Co. was drilling at 410 feet in its No. 1, SW cor. Section 30-8-8, and W. R. Ramsey was drilling his No. 1, NW cor. Section 31-8-8, at 360 feet.

T. B. Slick and others were building a rig for their No. 1, C NW SE SE, Section 27-6-7.

In Okmulgee County, Wheeler & Vincent were drilling their No. 1 Tiger, SE cor. NW, Section 9-14-11, at 200 feet. H. D. Preston had 2,000 feet of oil in his No. 1, SW cor. NW NE, Section 35-14-11, from sand at 2,290-2,320 feet.

In Okfuskee County, Hartman was building a rig for his No. 1 Sears, NE cor. Section 5-11-11.

In northeastern Stephens County, the Skelly Oil Co.'s No. 25 Frensley, CSL SW SW, Section 26-1s-5w, was good for 10 bbls. from broken sands at 671-761 feet. The Magnolia Petroleum Co.'s No. 22 Dillard, CSL SE SE NE, Section 2-2s-5w, was likewise a 10-bbl. well at 606-669 feet.

In the northwestern part of the county, Walters and others abandoned their No. 1 Brown, SE cor. Section 23-1n-9w, as a failure at 2,325 feet. It was an old well.

Graham Field

In the Graham Field, Carter County, the Twin State Oil Co. had a 60-bbl. well in its No. 3 Williams, C NE NW SW, Section 23-2s-3w, from sand at 2,574-2,617 feet. The Southwestern Petroleum Co.'s No. 2 Wolfe, C SW SE SE, Section 25-2s-3w, made 125 bbls. natural from sand at 3,010-27 feet. It was an old well. C. R. Smith shot his No. 7 fee, C NE SW SW, Section 26-2s-3w, with 30 quarts in sand at 3,270-3,300 feet and the result was a 30-bbl producer.

The Continental Supply Co.'s No. 1 Williams, C NE NE SW, Section 18-2s-3w, was dry and abandoned at 2,806 feet. The Magnolia Petroleum Co.'s No. 7 Bennett, NE cor. SW NW, Section 31-2s-2w, was good for 40 bbls. from broken sands at 2,405-75 feet, after plugging back from total depth of 2,985 feet. The Humble Oil & Refining Co.'s No. 2 Burrows, C SW SW NW, Section 32-2s-2w, flowed 50 bbls. from sand at 2,675-95 feet and was shut down to build tanks.

Merrick and others' No. 1-A Cobb, C SE SW NW, Section 5-3s-2w, was good for 65 bbls. from broken sand at 2,788-2,840 feet.

North of the Hewitt Field, the Humble Oil & Refining Co. abandoned its No. 14 Walker, C NE SE SW, Section 9-4s-2w, at 2,594 feet.

In the Hewitt Field, the Carter Oil Co.'s No. 2 Noble, CSL NE NE SE, Section 21-4s-2w, an old well, was a 10-bbl. producer from sand at 2,015-2,428 feet (broken.) The same company's No. 15 Noble, C NW NE NE, same section, made 15 bbls. from broken sands at 1,700-3,646 feet. Total depth was 4,065 feet and the hole was plugged back to 3,646 feet.

In northern Kay County, the Grand Island Oil & Gas Co. was cleaning out and underreaming the 8-inch to 2,505 feet in its No. 1 Freeman, CEL NE NW, Section 15-28-1e, an old well.

Jarvis and others were spudding their No. 1 Ryman, SE cor. SW SE, Section 15-29-1w. The Comar Oil Co. had a rig in place for its No. 1, NW cor. SE, Section 21-29-1w.

The Prairie Oil & Gas Co. was drilling at 1,550 feet in its old well No. 1 Keifer, CWL SW NE SE, Section 13-27-1e. The National Union Oil Co.'s No. 2, NW cor. NE SW, Section 16-27-1w, was shot with 150 quarts and produced 60 bbls. afterward from sand at 3,150-3,205 feet.

About 6 miles west of the Tonkawa Field, the Reno Oil & Gas Co. abandoned the location for its No. 1, NW cor. Section 26-25-2w.

In Tonkawa Field

In the Tonkawa Field, the Amerada Petroleum Corp.'s No. 35 Woods, CWL SW NE, Section 34-25-1w, was drilling at 1,052 feet; No. 36 Woods, NE cor. SW NE, same section, was below 800 feet; and No. 37 Woods, SE cor. NW NE, same section, was drilling at 305 feet. The Blackwell Oil & Gas Co.'s No. 4-C Corrigan, SE cor. NE, Section 34-25-1w, was drilling at 456 feet.

The Phillips Petroleum Co.'s No. 6 Corrigan, SE cor. NE NE, Section 34-25-1w, was drilling at 115 feet. The Carter Oil Co.'s No. 11 Stewart, SW cor. NW, Section 35-25-1w, was drilling at 115 feet. The Comar Oil Co. was drilling at 495 feet in its No. 2-W Endicott, NW cor. SW, Section 35-25-1w, and the same company was rigging up for its No. 3-W Endicott, SE cor. NE SW, same section. The same company's No. 5-B, C NW SE, Section 2-24-1w, made 20 bbls. on the pump from oil sand at 1,839-60 feet. No. 9-W Carmichael, NE cor. NW NE, Section 3-24-1w, was drilling at 415 feet. The Champlin Re-

(Continued on Page 128)

News of Mexican Fields

By George Blardone

TAMPICO, Mex., Sept. 5.—With 16 wells completed in Mexican Fields during the past week, 12 were failures, while 4, finished in the pay, added new potential production of some 19,200 bbls. to the producing columns. All of the pay completions were in the Cacalilao sector of the Panuco Field with the exception of one small 200-bbl. stripper finished in the South Fields.

The best well of the list is the International Petroleum Co.'s No. 82, Lot 5, which at 2,270 feet is rated 10,000 bbls. La Corona Petroleum Co. followed with its No. 116, Lot 1, rated good for 5,000 bbls. at the very shallow depth of 1,570 feet. Transcontinental Petroleum Co.'s No. 94, Lot 4, was finished at 2,250 feet, a 4,000-bbl. well.

In the South Fields, Mexican Eagle Oil Co.'s No. 25, Lot 224 Amatlan, is a completion at a subsea level depth of 1,644 feet, a 200-bbl. well.

The failures in Cacalilao were: La Corona Petroleum Co.'s No. 118, Lot 4, drilled into salt water at 2,080 feet; its No. 119, same lot, is a duster at 2,288 feet. Its No. 109, Lot 1, is a dry hole at 2,100 feet. International Petroleum Co.'s No. 61, Lot 4, is a dry hole at 2,054 feet, and its No. 88, Lot 5, finished in salt water at 2,353 feet. Mexican Sinclair Petroleum Co.'s No. 71,, Lot 3, is a dry hole at 2,010 feet. Rich Mex Oil Co.'s operations in Lot 1 were brought to a close with its last four remaining tests being either abandoned as dry holes or on account of salt water encroachments. In La Canoa sector, southeast of Cacalilao, Williamson and others' No. 3-A, Lot 4, was called a completion at 2,705 feet, a failure. It had a showing of some 30 bbls. of say 16 gravity oil at a little over 2,500 feet.

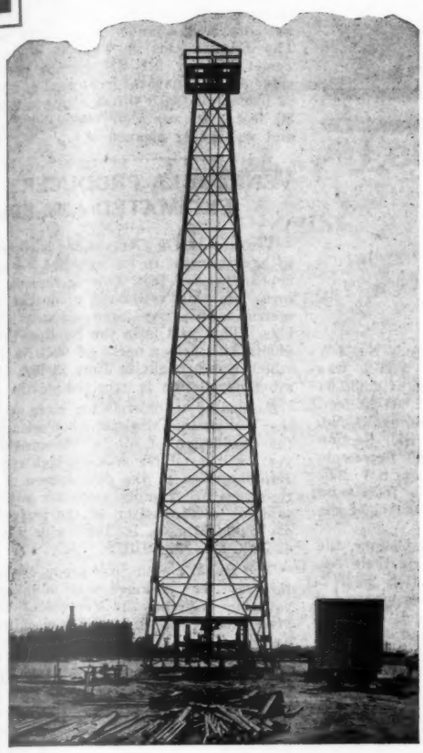
Up in Nuevo Leon, Agwi Companies' No. 21 Popote, in which several other major companies were interested by virtue of holding nearby acreage, is a failure at 3,000 feet, a dry hole from top to bottom.

Field Operations

Drilling operations in the Cacalilao sector of the Panuco Field are best described as follows: La Corona Petroleum Co. in Lot 4: No. 115 is drilling in shale at 600 feet; No. 117 is in the San Felipe at 1,190 feet; No. 121 is in the same formation at 1,155 feet. No. 134 is drilling in shale at 600 feet. In Lot 1: No. 128 is drilling in blue shale at 600 feet; No. 130 has cemented 8-inch at 1,110 feet in the San Felipe; No. 131 is drilling in blue shale at 680 feet; No. 133 is in the same formation at 430 feet. International Petroleum Co.'s operations in Lot 5: No. 36 is drilling in a shell with a showing of oil at 1,035 feet; No. 51, drilling in gray lime at 1,630 feet; No. 56, in white lime at 2,065 feet; No. 66, spudding; No. 82, drilling in white lime at 2,245 feet; No. 89, drilling in gray lime at 1,640 feet, with a showing by heads; No. 90, drilling in the San Felipe with a showing of oil at 1,250 feet; No. 92, drilling in gray shale at 945 feet. No. 99, drilling white lime, with the hole full of oil at 1,950 feet; No. 100, drilling in white lime at 2,065 feet; No. 102, rigging; No. 105, spudding; No. 106, drilling in gray shale at 465 feet; No. 108, rigging; No. 110, a derrick.

Mexican Gulf Oil Co.'s No. 6, Lot 1 Cacalilao, has cemented 8-inch at 1,195 feet in the San Felipe: No. 27, drilling in gray and brown lime at 1,828 feet, and No. 66, drilling in gray lime at 1,118 feet. Mexican Sinclair Petroleum Corp.'s operations in Lot 2: No. 7 has cemented 8-inch in the San Felipe at 1,165 feet; its No. 74 has done the same at 1,150 feet; its No. 76 is drilling in blue shale

(Continued on Page 124)



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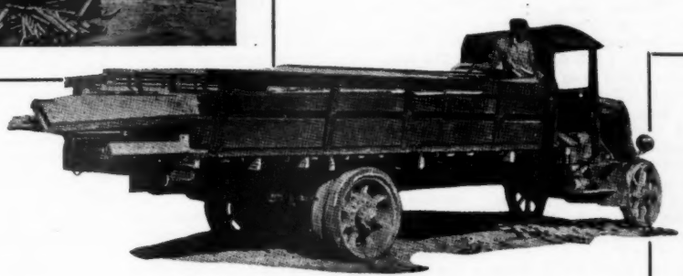

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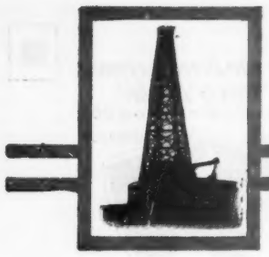

Kansas Oil Field News

By C. D. Lockwood

Two completions in Oswald Field in Russel County about up to expectations. Producer making 750 bbls. completed in Coleman Pool, Montgomery County. That pool now estimated as making 5,000 bbls. daily. Canary Oil gets 120-bbl. well in Independence-Elk City district.

Two new wells were being added to the Oswald Field in Russell County, and both were showing up about as expected, being practically the same as their offsets. The M. M. Valerius Oil & Gas Co. owns both of the wells, one of which offsets the Stearns & Streeter "gas" well to the east and the other is a diagonal southwest offset to the discovery producer. The former, in the SW cor. SE SW, Section 8-12-15w, had 2,000 feet of oil in the hole from pay at 2,968-70 feet. This well also had 1,000,000 feet of gas at 2,464 feet. It is similar to the Stearns & Streeter well which was making about 100 bbls.

The other new well in the NE cor. NW, Section 17-12-15w, had about 2,500 feet of oil in the hole from pay topped at 2,992 feet and drilled about 3 feet in.

Another good well was added to the Coleman Pool in Montgomery County when the Elco Oil Co. and Reiter Oil Corp. brought in its No. 1 Megonigle, NE cor. SE NW, Section 33-32-14, an offset to the Connolly & Tucker producer which was reported last week. The new producer topped the pay at 1,708 feet and was good for 750 bbls. This is the seventh well in the pool which is estimated to be making a total of more than 5,000 bbls. daily. A gathering line was being laid from the pool to a loading rack at Liberty. The Elco Oil Co. is controlled by Homer T. Lamb, head of the Red Bank Oil Co.

Some wells in the Rainbow Bend Pool, Cowley County, were getting close to the pay sand but had not reached the necessary depth. The Waite Phillips Co. and others' No. 4 Glasgow, in Section 20-23-8 was drilling at 2,875 feet and will probably be the next producer in the field.

In Elk County

In Elk County, the L. K. Oil Co. was spudding its No. 1 Hughes, NE cor. NW, Section 28-30-11.

The Sinclair Oil & Gas Co. was drilling its No. 2 Porter, CEL NE SE, Section 11-29-8, at 400 feet. Mitchell and others abandoned their No. 1 Perkins, C SE SE, Section 6-30-9, as dry at 2,720 feet. Post Fleeger's No. 3, NE cor. SE SW, Section 27-29-10, was shut down at 800 feet. The Clark Drilling Co.'s No. 2 Darnell, SW cor. NE NW, Section 12-30-9, was shot with 60 quarts and produced 60 bbls. from sand at 2,245-64 feet. The Southwestern Gas Co.'s No. 1 Walker, NE cor Section 24-31-10, was drilling at 900 feet, and Page Brothers' No. 1 Green, NE cor. NW SE, Section 18-32-10, was shut down at 2,344 feet with a hole full of oil.

In Osage County, Baker and others had a rig on the ground for their No. 1, C SE SE, Section 3-15-15. R. G. Gillespie abandoned his No. 1 Hughes, SW cor. Section 6-14-14, as dry at 2,458 feet. Moyer and others were spudding their No. 1 Williams, NE cor. SW NW, Section 12-18-14.

In Chautauqua County, Glidden and others were drilling their No. 1 Lemon, SE cor. SW, Section 27-32-11, at 1,150 feet.

Independence-Elk City

In the Independence-Elk City district, Greer and others shut down their No. 1, CSL SW, Section 5-32-15, at 1,300 feet. The Canary Brothers were drilling at 300 feet in their No. 1, SW cor. SE SE, Section 31-34-15e. The Empire Gas & Fuel Co. was rigging up a machine for its No. 1, SE cor. NW SE, same section. Connolly and others were also rigging up a machine for their No. 1 SE cor. NW, Section 31-34-15. The Canary Oil Co.'s No. 1, CWL NW NE NE, Section 6-35-15, topped the big lime at 1,375 feet and was good for 120 bbls. in sand at 1,723-24 feet.

The Red Bank Oil Co. was drilling at 860 feet in its No. 2 Love, CEL SE SW, Section 28-32-14, and the same company was spudding its No. 2 Coleman, CWL SW SE, same section. The discovery well, No. 1 Coleman, which was initially good for 3,000 bbls. from sand t 1,678-82 feet, stopped flowing and was swabbed, making 545 bbls. It was being put on the pump. Harwood & Winters were drilling their No. 1 Hoffman, NE cor. SW SE, Section 31-32-14, at 1,565 feet, after topping the lime at 1,473 feet. Homer Lamb's No. 2 Good, SE cor. NE NW, Section 33-32-14, was drilling at 1,100 feet. His No. 1 Good, NE cor. NW, same section, made 600 bbls. natural from sand at 1,698-1,700 feet, and when put on the pump was good for 420 bbls. The Elco Oil Co.'s No. 1 Good, NE cor. SE NW, same section, topped the lime at 1,429 feet and was drilling at 1,565 feet.

The Red Bank Oil Co.'s No. 1 Love, SE cor. SW, Section 28-33-14, was being put on the pump. It made 300 bbls. from sand at 1,681-93 feet.

The Red Bank Oil Co.'s No. 1 Haynes, NW cor. NE, Section 33-32-14, was originally good for 600 bbls. natural from sand at 1,703-07 feet, with total depth at 1,726 feet, in lime, and when put on the pump made 300 bbls. The same company's No. 2 Haynes, SW cor. NW NE, same section, started out at 1,100 bbls. from sand at 1,677-96 feet. Tucker & Connolly's No. 1, NW cor. SW NE, same section, made 1,000 bbls. from sand at 1,683-86 feet.

Matthews and others shut down their No. 1 Brooks, C SW SW, Section 18-33-14, at 1,000 feet.

H. K. Nelson and others shut down their No. 1, NW cor. Section 25-34-13, for 5-inch casing at 1,516 feet.

In the western area, Pope, Powell and others were cleaning out their No. 1 Lewis, C NW SE, Section 22-11-6w, Lincoln County, at 328 feet.

In Ellis County, Jim Davis and others were drilling their No. 1 Smith, NW cor. Section 14-12-16w, at 350 feet.

In Other Areas

In Butler County, Roy Ramsey and others were spudding their No. 1 Myers, NE cor. SW SW, Section 27-28-5. Dutton & Gillespie abandoned their No. 1, NW cor. SW, Section 17-28-7, as dry at 2,758 feet.

In Cowley County, the Trees Oil Co. was drilling at 250 feet in its No. 1 Shaffer, C SE SE NE, Section 10-31-3. The Alcorn Oil Co. was fishing for tools at 400 feet in its No. 1 Wright, C NW NW NW, Section 10-33-3. The Arkansas Fuel Co. had a rig built for its No. 1, NE cor. SE, Section 1-30-7. Bryan & Stinson abandoned their No. 1 Dunn, NW cor. NE, Section 18-32-3, as a failure at 3,507 feet.

The Empire Gas & Fuel Co.'s No. 1-A Eastman, NW cor. Section 5-31-6, was good for 1,000,000 feet of gas at 2,836-64 feet and 95 bbls. of oil at 2,864-85 feet. The same company was spudding its No. 5 Eastman, NW cor. NE SE, Section 6-31-6. The Southwestern Petroleum Co.'s No. 7 Eastman, SE cor. SW NE, Section 6-31-6, made 100 bbls. from sand at 2,874-78 feet and 3,000,000 feet of gas at 2,853-74 feet.

Across the line in Sumner County, the Brady Brothers were spudding their No. 1 Woods, SW cor. NE, Section 25-33-2. The Phillips Petroleum Co. encountered a hole full of water in its No. 1, NW cor. SW, Section 29-34-2, in sand at 3,078-3,100 feet and was drilling ahead at 3,112 feet. It had a show of oil at 3,028-33 feet.

In Coffey County, the White Eagle Oil & Refining Co. abandoned its No. 1, SW cor. NE, Section 26-19-13, as a failure at 2,275 feet.

In Chase County, the Muncey Oil Co. plugged its No. 1 Quinn, NE cor. SE, Section 1-19-8, as dry at 2,514 feet.

Greenwood County

In Greenwood County, J. A. Corbett and others had a rig on the ground for their No. 1 Brandly, NE cor. SE NE, Section 21-22-8.

In the Agard district, Beverly and others shot their No. 3 Hendrickson, CEL SE NE, Section 22-24-9, with 120 quarts and it was estimated good for 100 bbls. from sand at 2,164-98 feet. It was being put on the pump. Polhamus and others' No. 2, NE cor. SE SE, Section 22-24-9, was making 30 bbls. of oil and 100 bbls. of water following shots of 100 and 120 quarts in sand at 2,150-2,210 feet. The Mission Oil Co.'s No. 1 Hendrickson, SE cor. NE NE, Section 22-24-9, was drilling at 1,050 feet. Polhamus' No. 11 Marshall, CNL SW, Section 34-24-9, was good for 200 bbls. after a shot of 100 quarts in sand at 2,258-2,330 feet.

The Phillips Petroleum Co. had a rig up for its No. 1 Cravett, SW cor. Section 22-22-11. The York State Oil Co. also had a rig built for its No. 8 DeMalorie, C NE SE SW, Section 32-22-11.

Roth & Faurott were drilling at 500 feet in their No. 1 Biskitt, NW cor. SE NW, Section 12-25-8. Pierce and others had a rig on the ground for their No. 2 Jackson, CEL NE NE, Section 25-25-8.

Morgan and others were drilling at 1,268 feet in a new hole in their No. 1 Hendrickson, NE cor. SE NE, Section 18-25-9.

The Cosden Oil & Gas Co.'s No. 13 Sullivan, NW cor. SE NW, Section 14-24-12, was good for 50 bbls. after an 80-quart shot in sand at 1,728-54 feet.

N. A. Buck and others had a rig on the ground for their No. 1 Pixlee, SW cor. NW NW, Section 10-22-10. R. G. Gillespie's No. 5 Browning, C SW NE NE, Section 19-22-10, made 75 bbls. natural from sand at 2,291-2,321 feet.

Simons & Burke were drilling at 450 feet in their No. 1, SE cor. Section 36-23-9.

The Lewis Oil Co. and National Oil Co. had a 100-bbl. well in their No. 3 Heidelson, CNL NW SE, Section 1-24-9, after shots of 20, 40 and 80 quarts in sand at 2,314-59 feet. Roth and others shot their No. 2 Cartwright, NE cor. SE NE, Section 1-24-9, with 100 quarts and it made 40 bbls. from sand at 2,265-2,351 feet.

The Phillips Petroleum Co.'s No. 1 Hughes, SW cor. SE, Section 15-22-9, was dry and abandoned at 3,670 feet. The Empire Gas & Fuel Co.'s No. 9 Teeter, SE cor. NE SE, Section 16-23-9, made 44 bbls. natural from sand at 2,330-82 feet and 2,000,000 feet of gas at 2,310-30 feet. It was shot with 180 quarts and was being cleaned out.

VENEZUELA PRODUCER ESTIMATED 4,200 BBLS.

Venezuelan Oil Concessions is reported to have brought in its well No. R-8 at a depth of 1,511 feet, flowing through ¾-inch flow plug, estimated production 700 metric tons a day, approximately 4,200 bbls. This well is in the La Rose Field, about 340 metres north of well No. R-6 which was brought in June 14 last. Another completion is expected shortly.

According to information given out by the Venezuelan Minister at Washington, the production of oil in Venezuela this year will establish a new high record. Rapid strides in the development of oil resources are rapidly seen, the minister said, by a comparison of the production of 7,300,000 bbls. in 1923 with that of 425,000 bbls. in 1919.

The Royal Dutch-Shell group, the legation said, has obtained some of the most valuable oil lands in Venezuela. They are being developed by the Colon Development Co., which owns 4,500,000 acres in the Colon district, the Venezuelan Oil Concessions, Ltd., which owns 7,610 square miles, embracing the entire districts of Bolivia and Maracaibo, and the Caribbean Petroleum Co., which owns 4,560,000 acres. It is expected that the Royal Dutch group will shortly send men from its fields in Mexico to develop further the Venezuelan fields.

The Standard Oil Co. of New Jersey is also developing a concession, the minister said, but as a rule Americans have not entered Venezuelan fields to the extent that other nationals have.

CHICKASHA REDUCES INDUSTRIAL GAS RATE

CHICKASHA, Okla., Sept. 6.—The Chickasha Gas & Electric Co. has reduced the industrial rate for gas from 35 cents to 17½ cents per 1,000 feet—and the chamber of commerce is preparing to capitalize the reduction. Since announcing the lower rate the chamber has received several inquiries from industrial plants in the East.

The minimum rate is below 17½ cents. The sliding scale put into effect gives the average large plant a rate of 15 cents and an extra heavy consumer a rate of 12 cents, or even lower.

Chickasha's industrial plants are preparing to connect with the new gas line being built there. Heretofore they have used coal for fuel. The line may be completed by October 1.

RUSSIA MARKETS IN SPAIN

In order to control and expand the market for Baku oil products in Persia there has been formed, on Russian initiative, a special company under the name of "Persasneft" with a capital of 1,000,000 gold rubles in 200 shares of 5,000 rubles each. Fifty-one per cent of the capital will be held by the Asneft, the Soviet oil authority for Baku, 34 per cent by the mixed company known as "Scharg," and 15 per cent by Persian commercial interests. The Persasneft claims that during the current operating year it will dispose in the Persian market of 1,600,000 poods of lamp oil, 10,000 poods of benzine (petrol), and 6,000-7,000 poods of lubricating oils. The real reason for the existence of this company is to oppose the British interests which have so far ruled the Persian market; and its founders claim that this will be accomplished through the high quality of its goods, especially the benzine.

Another Letter From NYE

Going to the Circus?

"Please, dear Father, let me stay home and weed the garden—do not make me go to the circus!" said little Rollo.

Yes, he did—not.

Well, October 2 to 11 are circus days in the Oil industry! Not to go to the International Petroleum Exposition at Tulsa is like staying home from the circus to weed the garden.

Not one circus day but ten of them! Not three rings—three hundred! Fat men, human skeletons and everything! All the white elephants of the oil business will be there. Yes, and some of the monkeys.

Talk about your glittering street parade!—The Oil Pageant will make a circus parade look like a colored funeral on a cloudy day. Talk about your queens of the air!—Tulsa will have the queens of the earth.

Talk about your Siberian bloodhounds! Just wait until one of my salesmen gets on your trail! Talk about your mad behemoth of Bohemia! It won't be nearly as mad as the oil man who misses the 1924 Exposition!

Talk about anything—talk about your competitor if you must—but come! Are you going to stay home and pull weeds, or come to Tulsa and pull together?

Talk about business! Wherever your business is, your business is in Tulsa from October 2 to 11! Talk about a good time! MAYBE YOU WILL HAVE SUCH A GOOD TIME YOU WON'T WANT TO TALK ABOUT IT.

And, by the way, talking about pipe dies, Nye Dies cut fastest and easiest, last longest, and are cheapest in the long run.

See them at Tulsa, Booth No. 9, New York Building. The biggest little thing at the Big Show!

Harry G. Nye

P.S. If you have heard bad things about Tulsa and have any doubts, just check your watch and pocketbook with me at Booth 9, New York Building.

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No matter how hard the work — nor how tough the going—you can't beat a NYE Toledo Type Stock.

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NYE Toledo Type Stock

Wherever you go, from coast to coast, from the smallest wildcat to the largest producer—you will find NYE Toledo Type Stocks on the job and **working.**

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Why take a chance—make a tool prove it's worth before paying. Order a NYE Toledo Type Stock—yes, or any other NYE tool—from any of our jobbers—try them out. If satisfactory keep them, if not send them back for **full credit—no fuss —no bickering.**

Order now on free trial basis from any of our jobbers:

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Frick-Reid Supply Co.
Jarecki Mfg. Co.
Republic Supply Co.
Standard Sanitary Mfg. Co.
The Axtell Co., Fort Worth, Tex.
Norvell-Wilder Hdwe. Co.
International Supply Co.
Raymond Supply Co. Tulsa, Okla.
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Let Us Tell You All About Them

Gulf Coast Oil Operations

By P. L. McGreal

The Texas Co.'s No. 80 Hogg, West Columbia Pool, deepened from 2,520 feet where it came in as a gas well rated at 7,000 bbls. Decline in production in Goose Creek, Hull and Orange Pools. Gulf Production Co.-Snowden & McSweeney's No. 15 Davis, Big Creek Pool, Fort Bend County, 2,500 bbls.

HOUSTON, Tex., Sept. 8.—The Texas Co.'s No. 80 Hogg on the north side of the West Columbia Pool, rated at 7,000 bbls. at 2,775 feet, is the feature of the week in the Coastal region. It has been unusually quiet in the Southwest fields.

The estimated daily average gross production for the Coastal Pools is placed at 80,880 bbls., a decrease of 815 bbls. compared with last week. The completion at West Columbia was made late in the week and the increase in the daily average in that pool was partially offset by declines in the Goose Creek, Hull and Orange Pools. The estimate for each pool is as follows:

District—	Dy. Av.
Batson	1,685
Blue Ridge	620
Barber Hill	175
Dayton	110
Damon Mound	1,415
Edgerly (La.)	470
Goose Creek	10,225
Humble	6,800
Hull	18,950
Jennings (La.)	580
Markham	100
Orange	11,150
Pierce Junction	225
Spindletop	900
Saratoga	1,450
Sour Lake	4,425
Vinton	6,125
Welsh-Anse La Bute	90
West Columbia	14,500
*Miscellaneous	885
Totals	80,880

*Includes Big Creek, Big Hill, Nacogdoches, High Island and other spots.

Southwest Fields—	
Luling	35,000
Laredo	4,175
Somerset	2,410
Calliham	635
Rockdale-Minerva	515
Total	42,735
Grand total	123,615
Grand total last week	127,235
Decrease	3,620

Completions Reported.

A total of 23 wells were completed in the coastal regions during the week of which eight were worked-over holes. The new production aggregates 6,672 bbls. Eight holes were abandoned and one bailed saltwater. Ten wells are bailing at the close of the week.

In the southwest field the completions number eight, with but 480 bbls. of new production. One gasser is recorded.

At High Island Dome in Galveston County, the Gulf Production Co. abandoned No. 1 Smith at 2,200 feet with the drill stem stuck in the hole. A location has been made for No. 2 some 1,000 feet south toward the Gulf of Hexico. The Sun Oil Co.'s No. 7 Cade there is now below 4,270 feet, the deepest test ever drilled there. Its No. 1-C Cade is around 3,860 feet. The Gulf Co. abandoned No. 2 located South of Devers in Liberty County at 1,700 feet. It was a formation test. The Texas Exploration Co. quit No. 17 Warren at Hockley Dome in Harris County at 3,030 feet. Its No. 20 Warren is drilling around 565 feet. The Rycade Petroleum Corp.'s No. 1 Wisdom, on a supposedly new dome, 7 miles east of Damon Mound, is below 770 feet and still in gyp. Danciger and others abandoned No. 1 Williams 10 miles east of Bryan, Brazos County, at 3,250 feet. The Plateau Oil Co.'s gasser in the western part of San Patrico County, is still blowing wild, estimated at 40,000,000 feet. It has been blowing for two weeks.

The Texas Co.'s well in the West Columbia Pool is in the vicinity of the famous No. 1 Abrams and is surrounded by other wells that have been flowing on air for two and one-half years. It does not extend the pool. It was deepened from 2,520 feet, where it came in as a gas well. The Humble Oil & Refining Co.'s Tyndale-Wyoming on the northwest side of the dome, is a 60 bbl. pumper, showing 20 per cent water at 2,925 feet and its No. 2 Badge is a saltwater hole at 4,220 feet. The Texas Co.'s No. 78 Hogg is working over. The Gulf Production Co.'s No. 6 Tom Hogg on the northeast, is drilling below 2,135 feet and the Sun Oil Co.'s No. 3 Robertson is around 2,765 feet, working over.

Hull Pool.

In the Hull Pool, the Republic Production Co.'s No. 89 Dolbear will pump at 2,200 feet, as will the Gulf Production Co.'s No. 10 J. C. Baldwin at 3,100 feet. The Texas Co. and Vacuum Oil Co.'s No. 3 Hannah is making 100 bbls. at 2,845 feet, 21.7 gravity. The Gulf Production Co.'s No. 36 Phoenix is pumping 100 bbls. at 3,450 feet and its No. 7 Scarborough is bailing at 3,225 feet. The Mecom Oil Co.'s No. 7 Mecom is bailing at 2,850 feet, No. 5, which had been flowing 1,200 bbls. and quit, was restored to production and is now averaging 425 bbls. per day. The Yount-Lee Oil Co.'s No. 10 Merchant is bailing at 3,260 feet.

On the east side of the dome, the Republic Production-Houston Oil Co.'s joint No. 67 Dolbear is working over. No. 90 is drilling around 1,765 feet and No. 91 is below 1,456 feet. To the southeast, the Gulf Co.' No. 6 Thomas is at 3,465 feet. No. 29 Phoenix is deepening below 3,600 feet. On the south side, the Humble Oil & Refg. Co.'s No. 10 Hooks is at 3,615 feet. The Houston Production Co.'s No. 12 Barngrover is at 3,575 feet. On the west side of the dome, the Humble Oil & Refining Co.'s No. 1 Hannah is drilling around 3,800 feet and the Gulf Production Co.'s No. 15 Hannah is around 3,415 feet. On the northwest side, the Higgins Oil & Fuel Co.'s No. 1 Merchant is at 1,356 feet and the Mecom Oil Co.'s No. 6 is drilling below 3,010 feet. The Red Cantor Oil Co.'s No. 3 Cantor is shut down. On the north side, the Gulf Production Co.'s No. 13 Scarborough is at 2,745 feet.

Hardin County Pools.

In the Batson Pool, the East Batson Oil Co.'s No. 9 Allen and the Buchanan Oil Co.'s No. 77 Milhome will both make pumpers at 750 and 1,450 feet respectively.

The Paraffine Oil Co.'s No. 2-BBBC is drilling around 1,101 feet and W. B. Flynn's No. 1 Donohoe is below 2,365 feet. The Gulf Production Co.'s No. 13 Phoenix is shut down.

In the Saratoga Pool, the Weldon Oil Co.'s No. 5 Kirby is pumping 12 bbls. at 655 feet and the San Bernard Oil Co.'s No. 7, a work over, is making 45 bbls., 10 per cent water, at 1,410 feet. The Rio Bravo Oil Co.'s No. 10-B is a dry and abandoned hole at 965 feet. The Sun Oil Co.'s No. 171 fee is bailing at 650 feet, as is the Cotton Oil Co's No. 12 fee at 1,225 feet.

Paggi Brothers Oil Co. No. 5 Lewis is drilling at 1,390 feet. The Weldon Oil Co. is rigging up No. 6 Kirby and the Rio Bravo Oil Co.'s No. 311-A is a derrick.

In the Sour Lake Pool, the Minor Oil Co.'s No. 73 fee was abandoned as dry in the cap rock at 1,800 feet. The Sun Oil Co.'s No. 58 Bass & Eastham is bailing at 1,600 feet.

Hanamer & Co.'s No. 1 Drown is rigging. The Texas Co.'s No. 288 fee is fishing at 1,510 feet. J. H. Ancillery's No. 2 Rio Bravo is drilling at 910 feet and the Lake View Oil Co.'s No. 40 Hardin at 1,910 feet.

Orange Pool.

In the Orange Pool, the Gulf Production Co.'s No. 8 Hager-Moore, a workover, is making 150 bbls. at 3,500 feet. The Orange Petroleum Co.'s No. 3 Chesson is a dry hole at 3,400 feet. The Mutual Oil Co.'s No. 5 Chesson and Brownie Babbittee Oil Co.'s No. 2 McLean are bailing at 2,850 feet and 2,870 feet respectively. The Rycade Petroleum Corp.'s No. 2-E State land is going on the beam at 4,995 feet.

On the southeast side of the district, the Sun Oil Co.'s No. 5 Brown is at 4,935 feet and the Brownie Babbittee Oil Co.'s No. 4 Brown is around 4,980 feet. The Gulf Production Co.'s No. 5 Pevito* is below 5,100 feet, the second deep test it has drilled there. The Rycade Petroleum Corp.'s No. 1 Cow Bayou is rigging to work over at 4,550 feet and No. 14 is rigging for a new hole. No. 8 is drilling at 1,565 feet with a location for No. 3. The Gulf Co.'s No. 2 Hammam is around 1,450 feet.

In other parts of the pool, the Humble Oil & Refining Co.'s No. 7 Winifree is at 3,155 feet with No. 1 Carbello working over. The Mutual Oil Co.'s No. 5 Chesson is at 4,655 feet and No. 13 below 4,615 feet. The Edgerly Petroleum Co.'s No. 10 Carbello is around 1,565 feet. The Sun Oil Co.'s No. 4 Gunstream is washing to bottom of the hole at 3,490 feet. Its No. 1 Kato on the northeast side of the pool, is drilling at 4,600 feet.

Big Creek Well.

Late in the week the Gulf Production-Snowden and McSweeney's No. 15 Davis in the new Big Creek Pool in Fort Bend County, started flowing 2,500 bbls. at 2,485 feet. The oil is 26 gravity and the well is located 700 feet east of No. 6 Davis. The same interests are drilling No. 14 Davis and No. 7 Wheat there.

Kirby Petroleum Co. and Mills Bennett's No. 1 McKinney on the southeast side of the Barber Hill Dome, is around 4,200 feet and will probably be abandoned.

At Damon Mound, the Sinclair Oil & Gas Co.'s No. 1 Gulf-Cave is drilling round 3,815 feet. On the south side of Stratton Ridge, the same company's No. 1 Perry is around 2,520 feet. Evans and others' have a derrick up for No. 1 Dolly on the northeast side.

Deering and associates' No. 2 Bissonnett on the northwest side of the Humble Pool is fishing for drill pipe stuck in the hole. A derrick on the old Cherry lease collapsed while a crew was pulling pipe and Andrew Williams, a contractor sustained a broken shoulder. J. M. Hester has started No. 70 Hermann.

Goose Creek Pool.

The Gulf Coast-United Central Oil Co. abandoned No. 28 Galliard in the Goose Creek Pool at 3,165 feet. The Southern Exploration Co.'s No. 7 Wright is flowing 200 bbls. by heads at 1,575 feet.

In the bay, the Gulf Production Co.'s No. 15 State land is rigging and No. 11 is drilling around 3,565 feet. No. 2 San Jacinto is at 2,455 feet. No. 3 Hirsch is around 4,110 feet and No. 4 is below 3,000 feet. The Humble Oil & Refining Co. is rigging No. 5 Jones to drill with electric rotary rig. The Copeland Oil Co.'s No. 5 Chapman-Bryan at the mouth of the creek is drilling around 2,435 feet.

On the east side, the Humble Oil & Refining Co.'s No. 56 Smith is at 4,175 feet and No. 59 below 2,435 feet. The Sun Oil Co. is plugging screen in No. 8 Bartlett-Smith at 2,900 feet. On the Duke lease, the Inca Production Co. is working over No. 1 and rigging No. 2. The Gulf Coast and United Central's joint No. 31 Galliard is working over. The Humble Co.'s No. 11 Tabb is at 3,300 feet and the Gulf Co.'s No. 21-A Wright is drilling around 3,300 feet with No. 11-A rigging to deepen. The Hisgen Petroleum Co.'s No. 2 Busch, northwest of production, is around 2,935 feet.

Vinton, La., Pool.

Wilson and Tucker's No. 2 Parks in the Vinton, La., Pool will make a pumper at 2,550 feet. Marrs McLean's No. 5 Gray is bailing at 3,200 feet.

The Gulf Refining Co.'s No. 2 Gray is at 3,275 feet and the Texas Co.'s No. 1-A Gray at 1,700 feet with No. 6 around 875 feet. The Vinton Petroleum Co.'s No. 13 Harmony is at 1,265 feet and No. 13 Rescue at 1,155 feet. The Just Oil & Refining Co.'s No. 2 Lyons is around 4,110 feet and No. 1 Weeks at 1,765 feet. The Edgerly Petroleum Co.'s No. 1 Gray is drilling at 3,265 feet.

Southwest Fields.

Tank car shipments of crude from the Laredo pools during the month of August totaled 960 cars against 1,027 cars during July, which was the record for the districts. The shipments were made by the Texpata Pipe Line Co. and the Magnolia Petroleum Co. 769 cars to Aransas Pass, where the crude was loaded into tankers consigned to Port Arthur and Houston refineries and to Atlantic seaboard ports. The balance went to Laredo and San Antonio refineries.

In the Calliham Field in McMullen County, Wilkerson & Lightfoot's No. 2 Lark is a 40 bbl. well. Holliday and others' No. 1 Stitz is a gasser. The Coyle-Concord Oil Co.'s No. 3 Frio River bed is bailing and No. 4 is drilling. Darden & Stephens No. 2 Fuchs is below 655 feet. Powell and others are offsetting it with No. 1 Aycock drilling at 385 feet. The Southern Natural Gas Co.'s No. 10 Lark set casing at 615 feet and No. 9 is drilling below 1,375 feet. McCoy & Walton, north of Three Rivers, Live Oak County, is drilling at 650 feet.

In the Rockdale-Minerva shallow sand section of Milam County, Roundtree & Co.'s No. 9 fee is a 6 bbl. well. Lucky & Moore's No. 2 Moody is a 4 bbl. pumper. The Lee-Phillips Oil Co.'s No. 2 is making 8 bbls. The Noack Oil Co.'s No. 1 Phillips is rated at 10 bbls at 990 feet. J. E. Lee's No. 1 Leutge is a 10 bbl. well. The Noack Oil Co.'s No. 1 Sterlsky is drilling at 1,000 feet. Glass Brothers' No. 1 Von Gotem, 1½ miles west of Rockdale is at 700 feet and Bartlett's No. 1, 1 mile north of Rockdale is drilling at 735 feet.

Underwood and others have locations for three deep tests south and east of the Somerset Field, in Atascosa County. T. B. Slick's No. 1 Lamm in Bexar County is drilling around 2,000 feet. West of Falls City in Karnes County, T. R. Bealls' No. 1 Dewess is drilling at 2,560 feet. In Wilson County, the Plateau Oil Co.'s test near Lavernia is at 3,000 feet and the Rosalie Oil Co.'s No. 1 Denning, northwest of Stockdale, is drilling at 1,270 feet. McClanahan and others No. 1 north of Carpenter, was abandoned at 2,185 feet. It was drilled 60 feet into the Edwards lime.

Smith and associates have a location for No. 3 Parks, near Fannin in Goliad County. In Jim Hogg County, the Weber Oil Co.'s No. 3 Holbein is drilling below

(Continued on Page 124)

How Much Does Mud Cost?

Hauling a heavy load of pipe on an Athey Wagon through a sea of mud.

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ATHEY TRUSS WHEEL WAGON
IT BRIDGES THE SOFT SPOTS

Rocky Mountain Area

By F. B. Taylor

First oil well found in Utah. Crescent Eagle Co. strike reported flowing wild on Crescent Dome. Midwest gets 25-bbl. black oil producer on North Casper Creek Dome, Wyoming. Derby Dome Co. has 75-bbl. completion. California Co. completes 40-bbl. well in Sunburst Field; Homestake finds producer.

CASPER, Wyo., Sept. 8.—The well of the Midwest Refining Co. drilling on the North Casper Creek Dome, west of Casper about 35 miles in Natrona County, found oil and water in what is believed the Sundance sand. The well was at first reported as a big producer good for anywhere from 3,000 to 10,000 bbls., but authentic reports from scouts who have returned from the well place the amount of oil as less than 25 bbls., and the water flow rather heavy. The well is located on Section 36-37-82.

The Midwest commenced drilling on this well last year, and struck a flow of gas in the Frontier sands last fall, after which the well was shut in until this summer when drilling was resumed. At present the well is shut down awaiting orders. The gas was found about 900 feet and was fairly strong, it was estimated good for 1,000,000 feet at first but fell off rapidly; however the well is still producing gas from this horizon. The oil strike is black crude such as is usually found in the Sundance and all sands below that horizon in this region, and therefore the market value of the strike is lessened because the black oil production of this region is used mainly for asphalt and asphaltic paints which have a limited market at present.

North Casper Creek Dome

The North Casper Creek Dome is a structure running northwest and southeast with a closure of 1,600 feet and a nose or terrace on the southwest side of the oval. The escarpment on the surface is the Shannon sandstone and on the south end of the structure much of the surface is covered with sand dunes that hide the geology. The Midwest well is located close to the top of the structure and the appearance of water in this well does not look good for holdings down on the slope farther in the Sundance sand where the present strike was made. However there are two other sands below the Sundance that may be found productive, the Embar and Tensleep, and the presence of water in the Sundance does not mean that the lower sands will be found water bearing by any means. The North Casper Creek Dome is one of the structures of the general Powder River uplift that crosses central Wyoming and it has been found carrying black oil at Poison Spider, Pine Mountain, Bolton Creek and Notches, also carrying light oil at Iron Creek.

Flowing Wild in Utah

Another strike was reported from the well of the Crescent Eagle Oil Co. on the Crescent Dome, near Thompson, Utah. This report states that a gusher was struck at 3,150 feet and that the well is flowing wild. No details were to be had and scouts are now on their way to the well to verify the report which is generally given little credence though it is hoped it is true. This would be the first well ever found in Utah and would start again the active work there that died out two years ago when several dry holes were brought in by some of the larger oil companies and the State was abandoned except in a few places where some small production was found.

The Union Oil Co. of California will start drilling on the Lake Creek Dome on Kirby Creek, Hot Springs County, Wyoming shortly. This firm is interested in the black oil area of eastern Hot Springs County and has drilled two wells on the Black Mountain Dome about 30 miles west of Thermopolis, both wells showing for commercial producers of black oil. The Lake Creek structure was leased by local parties of Thermopolis who arranged for the Union to drill. The area is a wildcat and has never been tested even in the shallow sands.

Drilling in Red Desert

The Kasoming Oil Co. is drilling several wells in the Red Desert across the Green Mountains from the Lost Soldier Field and this activity is drawing considerable attention. The Associated Oil Co. of California drilled one deep test in the Red Desert which proved to be a duster, the only deep well ever put down there, although a large structure with several superimposed domes is known to lie across the upper Red Desert country. The Sage Creek Petroleum Co. drilled a well on Section 16-27-95 about three years ago that came in a big gasser at 1,700 feet and this well has been taken over by the Kasoming and is being used as a fuel supply. The men of the Kasoming report an odd feature in the production of this well; it is claimed that the gas pressure falls and raises every six hours with great regularity.

The first well of the Kasoming on Section 8-27-95 is drilling at 1,195 feet, the second test is at 1,343 feet on Section 17-27-95 and the third well is at 700 feet. These wells were all started with a 20-inch hole.

Derby Dome Producer

The Derby Dome Wyoming Oil Co. brought in a 75-bbl. producer on the Dunne lease on the Derby Dome, in Fremont County, Section 10-31-98 at 911 feet in the Embar sand. This field is proving to be a good operation for black oil and the English syndicate that is heavily interested in the district has practically the whole of the field under its leases. The oil is sent by pipe line to the railroad a short distance from Lander and then by tank cars to Casper where it is used in the asphalt stills of the Midwest here.

Colorado Operations

In Colorado the Weyland well of The Texas and Transcontinental in the Moffat Field is still having casing trouble on top of the Dakota sand. The Midwest well is setting the inside string of casing at a lower point to shut off some cave before drilling in the well and the work in the Fort Collins district is routine. Pueblo is becoming active and the companies are securing tracts about that city over a large area. The Ohio Co. appears to have been the first on the ground and has some choice tracts while the other firms seem to be checkerboarding.

Montana Producer

In Montana, in the Sunburst Field in Toole County, the California has a producer from two sands. The Sunburst sand on the McKee lease proved productive and would make a commercial well but the company drilled on down to the Ellis sand and brought in a 40-bbl. producer at 1,489 feet. The Homestake Oil Co. found a 50-bbl. well on the Reibe lease at 1,535 feet and the O'Haire Oil Syndicate found a 20-bbl. well in the Ellis sand on Section 14-35-2 while the Red Deer Oil Co. has a smaller well on the Anderson lease at 1,559 feet, estimated at 15 bbls. The deep well of the Potlatch Oil Co. is still having trouble with the gas pressure and has not made any hole since recovering the tools. No water can be kept in the well on account of the gas pressure. This well is standing now at 3,075 feet and the crew is trying to fill the hole with water in order to hold back the gas until the tools can drill below the sands producing same.

In the Lake Basin Field, in Stillwater County, the Midwest purchased the Harrison Oil & Gas Co.'s tract of 300 acres lying about 2 miles north of the discovery well, for $108,000 and an overriding royalty of from 2½ to 5 per cent. The field is to have another well started soon backed by Chicago capital with the location about 5 miles south of the Hepp well on Section 25-1-21 and the work is under the direction of L. C. Neudicate who has been active in the wildcat territory around Cat Creek for the past few years.

The field runs from Wyoming fields for week ending September 6 were as follows:

Salt Creek	81,645
Teapot	3,238
Big Muddy	3,840
Grass Creek	3,270
Elk Basin	1,060
Greybull	40
Rock River	3,300
Lance Creek	1,770
Poison Spider	670
Osage	350
Hamilton Dome	700
Mule Creek	700
Lander	300
Byron	70
Pilot Butte	75
Lost Soldier	5,640
Ferris	140
Rex Lake	230
Total Wyoming	106,345
Total Montana	8,112
Grand total	114,457

News from Fields of Canada

By Victor Lauriston

CHATHAM, Ont., Sept. 8.—In the Irma-Wainwright Field, enst-central Alberta, British Petroleum's No. 4, drilling not far from No. 2 producer on Section 30-46-6w4 has encountered oil in the sand where, last fall, No. 2 got its heavy crude. Preparations are being made to drill in the well and determine the flow. British Petroleum's No. 3, Section 29-46-6w4 has a drill stem on the ground and is resuming work to test the capacity of the well. The results secured here should be definitely known by the end of next week. Maple Leaf Oil Co.'s No. 1, Section 24-45-8w4 which is in the gas sand around 1,775 feet is setting casing; the casing will then be cemented and the well drilled in. Derrick timbers for Maple Leaf No. 2 are on the ground. This test will be rigged up close to No. 1.

Near Irma, the Grattan Oil Co.'s gasser on Section 45, Township 8, recently caught fire, some gas escaping from the coupling in the pit becoming ignited. The boiler house and derrick were burned and considerable equipment destroyed. The "old Grattan well' was drilled about 10 years ago by the Grattan Oil Co., a pioneer Edmonton oil enterprise. It developed around 6,000,000 feet per day gas production with 675 pounds pressure. The well has been shut in for lack of a market. The location is south of Hawkins station on the Grand Trunk Pacific about 15 miles from Irma.

At Irma the Irma Oil Development Co., Section 28-45-9w4 has resumed drilling of the town lot test spudded in last fall. The work is being carried on under contract, and is to be finished this fall. If gas is secured the production will probably be distributed in Irma.

The Anglo-Wainwright Oil & Refining Co. is reported to be unloading equipment for a test to be drilled on leases adjoining British Petroleum's No. 1. The test is to spud in this month. Crown Oil Co. of Edmonton will put two outfits in the field. Britannia Oil Co. will drill a test on the Richard Aykroyd leases. The Phoenix Oil Co. headed by Col. George B. McLeod is also arranging for a test. The British-Wainwright Oil Co. is moving a heavy standard outfit from the Okotoks Field to a location a short distance south of British Petroleum's No. 3.

It is reported that, except for the one drilling outfit now at work at Fort Norman, all the other Imperial rigs in the Far North will this fall be dismantled and shipped back to Edmonton, for use in the Alberta fields.

In the tar sand district of the Athabaska, nine cars of tar sands have been shipped out this year by the McMurray Asphaltum & Oil plant at Waterways, for experimental work. Half of the shipments are being used by Thomas Draper in his work for the producing company, and half are being utilized in the University of Alberta testing station. The University is now conducting a series of tests with the sands. Robert M. Birck of Chicago, president of the Blackston Petroleum Co., has returned from an inspection of the tar sand deposits in company with Howard Stutchbury, provincial trade commissioner of Alberta, and S. C. Ells, of the Federal Mines Department. Mr. Birck represents American interests which are planning to develop the tar sands by the McCabe extraction process.

In southern Alberta, the Canadia Oil & Refining Co.'s (Rogers-Imperial No. 1) Section 29-1-11w4 has suspended drilling around 2,650 feet and will run 4½-inch casing to protect the hole from caving. The Imperial Oil, Ltd., derrick is up on the Talpey leases, 1 mile north of the Rogers-Imperial, and everything is ready to spud in. Angle-Wainwright Oil Co., which made a tentative location earlier in the year is reported to have abandoned its venture for a test in the Irma-Wainwright Field.

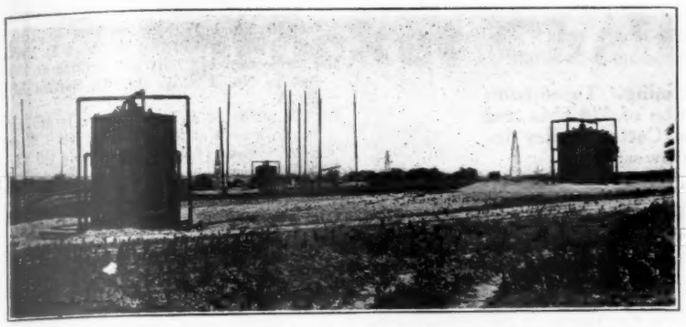
In the Okotoks Field, southwest of Calgary, the Royalite Oil Co.'s No. 5 is down 3,410 feet with a deep test on Section 6-20-2w5, carrying the 6-inch casing. It has been decided not to deepen No. 2, which has a considerable gas production.

In the Willow Creek district, west of Nanton, the new Imperial test at Rice Creek is drilling steadily. North of Browning, Mont., and a little south of Cardston, Alberta, the Mountain Chief test was shot to dislodge a lost tool, and developed a little oil in a tight formation.

In the Foremost Field, southern Alberta, the new pipe line from Foremost to connect with the Bow Island main line of the Canadian Western Natural Gas Co. is reported half completed, and should be ready to deliver gas some time in October.

In the Ontario fields, Eugene Coste & Co.'s No. 7, Matt Boyle farm, Dover East Township, Kent County, got the top of the Trenton limestone at 2,894 feet and is drilling around 2,990 feet. In Romney Township, Union Natural Gas Co.'s No. 251, J. Shanks farm, near Port Alma, which got the Trenton lime at 2,749 feet, is reported drilling around 3,100 feet.

PERFECTION VAPOR PRESSURE TANKS
WOOD, AND BOLTED STEEL TANKS



In the picture above, the two Perfection Vapor Pressure Flow Tanks owned by the Gypsy Oil Company are handling 75 million cubic feet and 6,000 barrels of oil daily. Upright pipes carry away into the air the surplus gas.

How Perfection Vapor Pressure Flow Tanks Work

Centrifugal force is the motive power which separates oil from gas in the Perfection Vapor Pressure Flow Tank.

Oil is heavier than gas—770 times as heavy. Centrifugal force acts 770 times greater on oil than on gas. By the whirling motion created in the tank by the velocity of the incoming oil and gas, the oil is thrown to the sides of the tank and runs down; the gas remains in the center of the tank and escapes from the mains or valves.

The separation is absolutely positive and every particle of oil is drained from the gas.

Cromwell Operators Place Faith in Perfections

ANOTHER tribute to Perfection Vapor Pressure Tanks!

In the Cromwell pool, the newest of Oklahoma's major producing areas, there are almost as many Perfections as all other tanks of other makes combined.

Why? Simply because under conditions that exist in that prolific pool, the Perfection was the one tank that answered all requirements.

For the oil in this field comes from below the 3,000 foot depth under an extremely heavy gas pressure.

Perfection Vapor Pressure Tanks were put on the job, thus doing away with the necessity of costly gas separators. In every instance the oil was scrubbed absolutely clean of the gas.

When gasoline plants are erected, owners can easily market this gas, making the cost of the battery absolutely nil when the other savings already effected are taken into consideration.

Don't forget of course that all Perfection tanks are the original enemies of evaporation and are saving their owners thousands of dollars at Cromwell as in all other important fields in the country.

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BARTLESVILLE ~ OKLAHOMA

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North Louisiana-Arkansas

By M. L. Vaughn

Production decreases 5,455 bbls. a day. Both States declining. Three completions in Union County show aggregate initial production of 310 bbls. and eight in Ouachita 577 bbls. Invincible Oil Co.'s well in Cotton Valley increased production to 500 bbls. and extends field mile southwest.

SHREVEPORT, La., Sept. 8.—Production figures continue on the down grade, the decrease for the past week averaging 5,455 bbls. a day. Every district in north Louisiana shows a decline, the total production amounting to 53,065 bbls., a decrease of 1,990 bbls. a day. In the Arkansas field, the situation is similar, the total production of 136,690 bbls., representing a decrease of 3,465 bbls. daily. Total production of both fields averaged 189,755 bbls., distributed as follows:

North Louisiana	
Bellevue	4,670
Caddo light	10,065
Caddo heavy	2,415
Cotton Valley	5,055
De Soto and Red River	4,490
Elm Grove	820
Haynesville	17,950
Homer	7,600
Total	53,065
South Arkansas	
El Dorado	12,740
Nevada County	1,430
Smackover light	37,040
Smackover heavy	83,130
Stephens	2,350
Total	136,690
Total both fields	189,755
Total previous week	195,210
Decrease	5,455

Completions

Union County, Arkansas

Completions in the Union County area of the Smackover Field numbered nine, with two big gas wells, four failures and three producers, having an aggregate initial production of 310 bbls.

Bauxite Oil Co. abandoned No. 1 Murphy, Section 35-16-16, at 2,068 feet.

Bonderant and others abandoned No. 1 Tuberville, Section 9-18-12, at 2,660 feet.

Holliday, Trustee, completed No. 5 Goff, Section 6-16-16, flowing 60 bbls. at 2,359 feet.

The Magnolia Petroleum Co.'s No. 1 Bradford, Section 8-16-15, made 33,000,000 feet of dry gas at 2,298 feet.

Page and others abandoned No. A-1 Alphin, Section 30-16-16, at 2,405 feet.

The Pure Oil Co.'s No. 2 Burns, Section 20-16-15, made a 100-bbl. pumper at 2,105 feet.

The Standard Oil Co. completed No. 4 Alphin, Section 2-16-15, making 25,000,000 feet of dry gas at 2,270 feet.

Starks and others abandoned No. 1 Little, Section 21-19-12, at 2,734 feet.

The United Central Oil Corp.'s No. 2 Burton, Section 25-16-16, made a 150-bbl. pumper at 2,046 feet.

Ouachita County, Arkansas

In the Ouachita County area of Smackover Field eight wells were completed, all producers, with an aggregate initial production of 577 bbls.

The Arkansas Invincible Oil Co. completed No. 9 Patton, Section 31-15-16, pumping 60 bbls. at 2,270 feet deep.

The Atlantic Oil & Producing Co.'s No. B-3 Wells, Section 25-15-17, made a 35-bbl. pumper at 2,290 feet.

The Forest Oil Co. completed No. 5 Cramer, Section 22-15-16, swabbing 175 bbls. at 2,298 feet, and No. 7 Cramer, Section 27-15-16, pumping 90 bbls. at 2,297 feet.

Lee, Trustee, completed No. 1 Smith, Section 26-15-17, pumping 40 bbls. at 2,359 feet.

R. P. Nelson completed No. 3 Jeffus, Section 26-15-17, pumping 70 bbls. at 2,341 feet.

Skelly and others completed No. 5 Chandler, Section 19-15-16, pumping 7 bbls. at 2,317 feet.

Sutton and others completed No. 1 Ebenezer, Section 20-15-16, flowing 100 bbls. at 2,303 feet.

Cotton Valley, Webster Parish

Hude & Aarnes completed No. 2 W. W. Cox, Section 22-21-10, making 30,000,000 feet of gas with a spray of oil at 2,542 feet.

De Soto Parish

Ulrey and others drilled to 3,001 feet in their test on the Frost Johnson Lumber Co. lease, Section 3-11-15, and the well has been abandoned. It was located near the old Spider district, 7 miles east of Logansport.

Morehouse Parish

Ladel and others completed No. 1 Feazel, Section 22-20-5, making 31,000,000 feet of gas at 2,279 feet.

The Natural Gas Producing Co. completed No. 12 Crossett, Section 35-21-4, making 7,000,000 feet of gas at 2,162 feet.

Ouachita Parish

The Southern Carbon Co. completed No. 35 fee, Section 5-19-5, making 1,500,000 feet of gas at 2,239 feet.

Nevada County, Arkansas

The Autry Oil Co. completed No. 1 Drake, Section 10-14-21, pumping 125 bbls. of fluid, 25 per cent water, at 1,169 feet.

Drilling Operations

Union County, Arkansas

The Arkansas Fuel Oil Co. set 10-inch casing at 171 feet in No. 2 Dumas, Section 29-16-15; Beggs and others are pulling casing to abandon No. 1 Murphy, Section 36-16-16, at 2,104 feet; Black Duke Oil Co., drilling up No. 2 Wilson, Section 19-16-15.

Dyer Brothers are drilling at 180 feet No. 2 Stout Lumber Co., Section 31-15-16; East and others shut down No. 1 Thompson, Section 5-17-15, and waiting orders at 2,265 feet; Estes and others set 6-inch casing at 2,230 feet in No. 1 Ponder, Section 1-16-17.

The Flo-Ark Oil Co. is rigging up No. 1 Murphy, Section 36-16-16; Freeman and others bailing casing at 2,035 feet in No. 1 Burton, Section 25-16-16; Gilliland Oil Co. waiting on standard rig with 12 feet of sand in hole at 2,265 feet in No. 3 Staples, Section 1-16-17.

Hatcher and others plugged back three feet and tested salt water at 2,111 feet in No. 1 Murphy, Section 25-16-16, and drilling in sandy shale at 2,279 feet; Humble Oil & Refining Co. has 1,200 feet of fluid with 10 per cent salt water, at 2,249 feet in No. 3 Saxon, Section 32-15-16.

The Imperial Oil & Gas Co. is waiting on standard rig after deepening six feet and has 7 feet of sand in hole at 2,211 fee in No. 2 Morgan, Section 29-17-14; Lanier and others cleaned hole and arranging to drill from 2,076 feet No. 1 Saxon, Section 16-16-16; Leonard and others waiting on standard rig with 8 feet of sand in hole at 2,149 feet in No. 1 Pendleton, Section 21-18-15.

Lyell and others set 6-inch casing at 1,950 feet in No. 5 fee, Section 3-16-15; Magnolia Petroleum Co. cleaning out with tools at 2,362 feet No. 2 Campbell, Section 13-16-17, and bailing to teat 5 feet of sand at 2,306 feet in No. 2 Campete-Campbell, same section; set 10-inch casing at 144 feet in No. 2 I. Smith, Section 2-16-17, and drilling at 400 feet.

McFarland and others set 10-inch casing at 42 feet in No. 4 Graves, Section 3-16-15, and drilling at 1,000 feet; Ohio Oil Co., rigging up No. 3 Scott, Section 19-16-15.

The Phillips Petroleum Co. is waiting on standard rig at 1,998 feet in No. B-2 Alphin, Section 11-16-15; Packard and others set 10-inch casing at 50 feet in No. 1 Fox, Section 21-16-15; Riggs Drilling Co. waiting on standard rig with 6 feet of sand and 600 feet of oil in hole at 2,265 feet in No. 3 Rice, Section 6-16-16.

The United Central Oil Corp. is drilling No. 3 Burton, Section 25-16-16, at 1,400 feet; rigging up No. 4 Burton, same section; set 10-inch casing at 105 feet in No. 3 Craig, Section 15-16-15, and drilling at 400 feet.

Ouachita County, Arkansas

J. E. Crosbie set 10-inch casing at 60 feet and 6-inch casing at 1,890 feet in No. 5 Berry, Section 33-15-15; Gilliland Oil Co. set 6-inch casing at 2,218 feet in No. S-4 LaGrone, Section 36-15-17; derrick up for No. S-5, same section. in No. 5 McRae, Section 30-15-16, 6 feet of sand at 2,290 feet; derrick up for No. 4 Myar fee, Section 30-15-16; in No. S-4 Wells, Section 36-15-17, bailing to test 3 feet of sand at 2,295 feet.

Green and others set 6-inch casing at 2,237 feet in No. 1 LaGrone, Section 30-15-16; set 10-inch casing at 52 feet and 6-inch casing at 2,252 feet in No. 2 La Grone, same section.

Gulf Refining Co. is bailing casing at 2,220 feet in No. A-6 Werner, Section 36-15-17; Hazen and others set 6-inch casing at 2,228 feet in No. 3 Fincher, Section 29-15-16; Morefield and others drilling sand rock at 2,600 feet in No. 1 McDaniels, Section 28-14-17.

Pure Oil Co. is fishing for six joints of 4½-inch casing at 2,210 feet in No. 7 Brister, Section 28-15-15; set 8-inch casing at 1,998 feet in No. 1 Johnson, Section 30-15-15; J. D. Reynolds cleaned hole in No. 2 Cramer, Section 22-15-16, and arranging to swab to test at 2,292 feet.

Riggs Drilling Co. is drilling No. 3 Myar, Section 29-15-16, at 1,200 feet; Simms Oil Co. set 10-inch casing at 42 feet and 6-inch casing at 2,022 feet in No. E-1 Berry Brothers, Section 30-15-15.

Sure Oil Corp. is losing returns at 2,200 feet in No. 1 Stringfellow, Section 28-15-16; Sutton and others drilling No. 4 McElroy, Section 28-15-16, at 1,520 feet.

The Texas Co. set 10-inch casing at 64 feet in No. 6 Berry, Section 33-15-15, and drilling at 1,375 feet; completed No. 2 McKenzie, Section 36-15-16, on November 26, estimated at 5,000 bbls. with 51 feet of sand, and now milling out casing at 1,819 feet.

Cotton Valley, Webster Parish

The Invincible Oil Co.'s well which came in last week making 35,000,000 feet of gas with a spray of oil estimated at 25 bbls. has increased to 500 bbls. and establishes an extension of the field over 1 mile to the southwest. The well is on the Lindsay lease in Section 22-21-10 and is surrounded by dry gas wells, the development of which had convinced operators that no oil would be found in this neighborhood.

Efforts to extend the field farther southwest are being made by the Alabama Petroleum Co., rigging up to drill No. 1 Gaynor, in Section 21-21-10 and S. S. Raymond and others, rigging up to drill No. 1 Gaynor, same section.

Moffatt & Murphy are drilling at 2,240 feet in No. 1 Pardee, Section 24-21-10, 1 mile south of production.

The Fortuna Oil Co. is drilling at 750 feet in No. 1 W. Cox, Section 15-21-10, set 10-inch at 450 feet in No. 4 L. Merritt, Section 14-21-10, and drilling at 150 feet in No. 2 S. J. Merritt, Section 14-21-10.

Humble Oil & Refining Co. is drilling in chalk rock at 2,430 feet in No. 1 Merritt, Section 14-21-10. Invincible Oil Co. made a location for No. 2 Crichton, Section 21-21-10; Ohio Oil Co. hit top of sand at 2,511 feet and drilling into the sand at 2,530 feet in No. 1 Bank of Cotton Valley, Section 22-21-10. The Ohio has rigs running on No. 4 and No. 5 Bodcau, rig up for No. 6 and derrick built for No. 7 in Section 15-21-10.

C. W. Robinson and others set 6-inch casing at 2,475 feet in No. 1 Duhe, Section 22-21-10, and the Woodley Petroleum Co. at 2,467 feet in No. 1 W. D. Merritt, Section 14-21-10.

Bienville Parish

Borden and others are drilling at 1,400 feet in No. 1 Thomas, Section 8-16-9, 4 miles east of Lake Bisteneau, and 6 miles farther northeast the Roxana Petroleum Co. has derrick up for No. 1 Bryan, in Section 30-17-6.

Bossier Parish

Skannall and others are drilling at 2,460 feet in No. 1 Railroad Land Co., Section 13-17-12, 10 miles east and a little south of Shreveport.

Bellevue Field, Bossier Parish

Only one rig is left running in the shallow sand territory, Bossier Parish, Bliss & Weatherbee having set 6-inch casing at 309 feet in Bliss & Weatherbee E-7, Section 29-17-11.

Caddo Parish

T. C. Adams and others are drilling at 2,200 feet in No. 1 Johnson, Section 16-14-16, 10 miles south of the Bethany gas field.

In the Pine Island district, the Dixie Oil Co. is drilling at 3,230 feet in No. 43 Robertshaw, Section 13-21-15, and at 1,300 feet in No. 63 Robertshaw, Section 14-21-15. The Texas Co. is drilling at 1,360 feet in Hobb A-6, Section 28-21-15.

The Fortuna Oil Co. is drilling at 1,875 feet in No. 12 Doan-Thigpen, Section 5-20-16, and the Gulf Refining Co. recementing 6-inch casing at 3,400 feet in No. 216 Ferry Lake, Section 14-20-16, on the north shore of Caddo Lake.

Caldwell Parish

Culver and others have a small showing of oil at 2,668 feet in No. 1 fee, Section 21-14-4e, and arranging to go back and set 6-inch casing at 2,664 feet and make a test. The well is 5 miles north of Columbia.

Claiborne Parish

The Dixie Oil Co. is drilling at 3,006 feet in No. 1 Eastep, Section 20-20-7, 6 miles southwest of Homer.

The El Dorado Chief Oil Co. is rigging up to drill No. 1 McElwee, in Section 13-22-7, 7 miles north of Homer.

The Gulf Refining Co. set 10-inch casing at 225 feet in No. 1 Farmer, Section 35-23-6, 10 miles northeast of Homer.

De Soto Parish

The Greyhound Syndicate is drilling in shale and gumbo in No. 1 Pollock, Section 36-11-14, 14 miles southeast of Logansport.

A. H. Tarver and others are drilling at 2,275 feet in No. 1 Hewitt Hicks, Section 10-11-14, 10 miles east of Logansport.

La Salle Parish

The Bur Ban Oil Co. is drilling at 1,790 feet in No. 2 Urania, Section 21-11-2e, 5 miles north of Urania.

The Columbia Oil & Gas Co. is rigging to drill No. 1 Urania in Section 22-10-2e, 3 miles southeast of Urania.

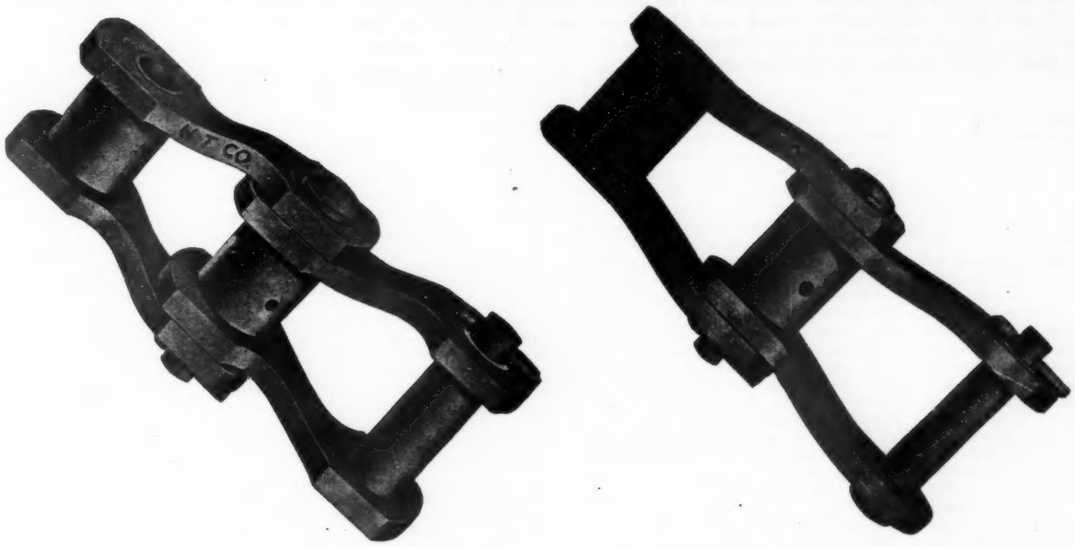
Morehouse Parish

The Natural Gas Producing Co. is

(Continued on Page 106)

IDEAL

Sprocket Chain and Sprockets



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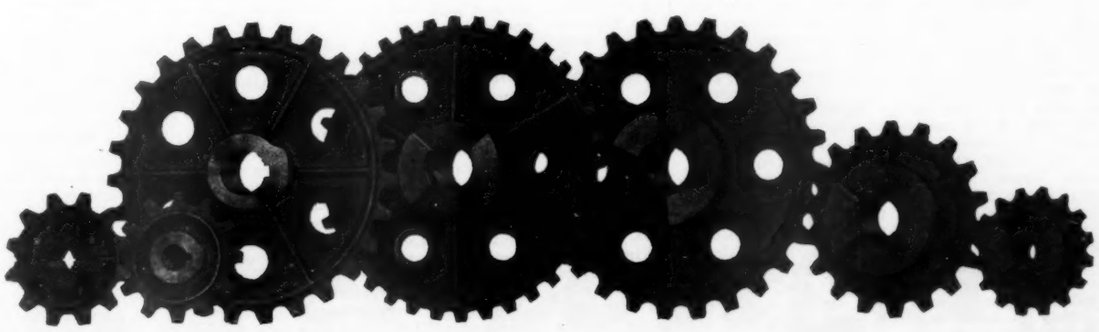

THE NATIONAL SUPPLY COMPANIES

California Field Operations

By L. P. Stockman.

Ten wells put on production at Torrance. Standard pushing work on Potter, Quandt and Ross Community leases and Chanslor-Canfield-Midway on Del Amo lease. Three producers in Dominguez, Union Co.'s No. 6 Hellman makes 1,653 bbls. Shell Co. has one 856 and one 800 bbls.

LOS ANGELES, Cal., Sept. 6.—The Pan-American, Standard and Chanslor-Canfield Midway Oil Companies finished 9 of the 10 new wells put on production at Torrance during the past week. These three companies were responsible for 2,908 barrels of the total new production added. The Pan-American finished four wells but their aggregate initial daily output was less than that of the Standard's three completions. No. 1 Andrews stands at the head of the Pan-American's four new pumpers with an initial daily output of 224 bbls., while No. 2 Pate, with an initial pumping of 132 bbls., stands at the foot The former, drilled to 3,806 feet and finished with a 6¼-inch oil string, is producing 16.2 gravity oil, while the latter, completed at 3,850 feet and finished with an 8¼-inch oil string, is producing 15.6 gravity oil which cuts 7 per cent. No. 1 Palmer and No. 1 De Witt finished the Pan-American's development program at Torrance and added to the company's daily production 198 bbls., and 147 bbls., respectively. Both were finished with 6¼-inch oil strings, No. 1 Palmer drilled to 3,850 feet, pumping 17.9 gravity oil and No. 1 De Witt drilled to 3,860 feet, pumping 18.1 gravity oil. The completion of these four wells leaves the Pan-American with only one or two clean-cut and work-over jobs, although the Petroleum Securities, another Doheny concern, is engaged in a rather intensive drilling campaign on Kleinmeyer leases Nos. A and B.

Standard Completions.

The Standard's contribution to the field's list of producers were Nos. 6 and 10 on the Joughin lease and No. 20 on the Marble Fee property. No. 6 Joughin was the largest of the trio, all of which, by the way, were pumpers. It was brought in doing 420 bbls. of clean 20.3 gravity oil from 3,840 feet after being finished with an 8⅝-inch oil string landed at 3,540 feet. No. 10 on the same property, operated under a sublease from the Sentinel Oil Company, is rated as a 247 bbl. pumper, the oil testing 14.1 degrees and showing a cut of 10 per cent. It was drilled to 3,802 feet and finished with an 8⅝-inch oil string landed at 3,500 feet. No. 20 Marble Fee was perhaps the best of the Standard's new wells, and, although it is only listed as a 340 bbl. pumper, the oil was of a good grade, testing 25.1 degrees, and showing a cut of less than one per cent. It was put on the beam at 3,750 feet after being finished with a 6¼-inch oil string carrying 553 feet of 60 mesh screen. The Standard is pushing development work on the Potter, Quandt and Ross Community leases. On the Potter the company shows 2,750 feet of hole in No. 1 and a new rig going up for No. 2. On the Ross Community lease, No. 1 is rigging up, while on the Quandt tract, No. 1 is drilling ahead at 2,310 feet and No. 2 is being rigged up. The company is making preparations to abandon No. 1 Felkner at 5,176 feet. In view of the fact that the hole has never given any encouragement, the move is justified and not unexpected.

The Chanslor-Canfield Midway Oil Company contributed two new wells during the week and incidentally increased its daily production 1,200 bbls. Both of the company's successful completions were in the extreme eastern end of the field on the Torrance lease. No. 64 is listed as a 540 bbl. well producing clean 23.7 gravity oil and No. 73, a 660 bbl. well, producing clean 25.6 gravity oil. Both were finished with 8¼-inch oil strings carrying shop perforated casing, the former being drilled to 3,695 feet and the latter to 3,663 feet. The Chanslor-Canfield Midway seems to be centering its drilling activities on the Del Amo lease, where six holes are being put down simultaneously. Eight new rigs have been erected on this lease, while only two are waiting for crews on the Torrance property. The Del Amo lease, in the Redondo section of the field, is only productive of comparatively small pumpers and, since most of the work at present is being done on this lease, the company's new production in the future will undoubtedly be smaller.

The Selby Root Oil Company concluded its development program by completing its last driller, No. 9 Torrance. When put on the beam after being drilled to 3,808 feet and finished with a 6¼-inch oil string, it pumped 140 bbls. of 22.3 gravity oil.

Shell's Deep Test.

The Shell's deep test No. 2 Kettler, has passed the 4,460-foot level without picking up a deep sand. This well is ideally located for a deep test and it is hoped the company will carry it at least 1,000 feet deeper. Judging from indications, No. 10 Bluemle will be the Shell's next new well as it looks fairly good at 3,850 feet. On the Scarborough lease, No. 7 is standing cemented at 3,540 feet and No. 1 at 3,855 feet, after being plugged bck from 3,941 feet. The company's No. 1 Dolores, an outpost well in the east end of the field, is scheduled to be deepened as it did not result in satisfactory production at 3,670 feet. The Shell plugged back to 3,553 feet and managed to secure an intermittent production averaging less than 25 bbls. a day. The well was really not a disappointment since it was some distance from production and the Shell's only hope seems to be in picking up a deep sand. Work has begun on the Lora J Oil Company's No. 1, which will be carried down for a deep test. It is the intention of the company to cut the 6¼-inch below the water shoe and sidetrack with cable tools The bottom of the hole is 3,777 feet.

Dominguez.

Three new wells were added to those already producing at Dominguez during the week, two by the Shell Oil Company and one by the Union. Both of the Shell's completions were on the Reyes lease, No. 3 A, which came in doing 856 bbls. daily, and No. 10, which made 800 bbls. No. 3A drilled to 4,148 feet and finished with a 6¼-inch oil string, carrying 294 feet of 60 mesh screen landed at 4,146 feet, was tubed to 3,654 feet. The oil, which is clean and tests 30.3 degrees, is flowing through a ⅞-inch bean under a pressure of 480 pounds. On a production test, No. 10 Reyes tanked a little less than 800 bbls. of clean 31.1 gravity oil. It was drilled to 3,982 feet and came in while a test was being made of the 8¼-inch landed at 3,945 feet. It is believed the company will kill the flow in order to finish the job. No. 6 on the same lease did not make satisfactory showing at 4,401 feet, after being plugged back from 4,550 feet, and as a result it will be deepened. No. 8 is held up with a fishing job at 4,150 feet, the formation being a sandy brown shale. The remaining wells on this property, No. 11 at 3,850 feet, No. 12 at 3,655 feet and No. 13 at 3,580 feet, are rapidly nearing completion depths and should augment the company's present production within a short time. No. 14 Reyes blew out early in the week and, while it demolished the derrick during its short reign of terror, it is believed the hole may be salvaged. The bit was being pushed ahead at 3,550 feet when this, the Shell's third and the field's fifth gasser broke loose. This is at practically the same depth at which the Associated's No. 1 De Francis blew out and junked the hole.

The Union's latest well was No. 6 Hellman, a completion recorded at 4,251 feet. It was finished with a 6¼-inch oil string and tubed to 3,831 feet. Flowing through a ¾-inch bean under a pressure of 400 pounds, it ran 1,653 bbls of clean 32.1 gravity oil into tanks during the first 24 hours. No. 7 Hellman is milling at 3,708 feet, while No. 2 Carson has been re-cemented at 3,285 feet and No. 3 Carson is coring at 4,169 feet.

Marland Well.

The recent short flow of the Marland Oil Company's No. 1 Dominguez and the several good cores found in the United Oil Company's No. 1 Dominguez is reflected in the amount of new work being started in the southern part of the field. The Marland has set a cement plug at 4,160 feet in order to make a water test. The drilling superintendent on this job is of the opinion that the 35 per cent cut which the Marland well showed is due to mechanical trouble and not to water intrusion. There is one disconcerting factor present, however, if a survey is made of the well log. Before being put on production test the company was satisfied that a water shut off had been secured and, after fulfilling the requirements of the State Mining Bureau, secured the department's approval. It is possible, of course, that the static pressure of the column of oil and water in the hole held back the outside water until the column of fluid was raised and the well allowed to flow. A close analysis of the oil produced revealed the fact that there was very little free water, the cut being nearly all emulsion. Under certain conditions the fluid would emulsify but in view of the present condition of the well it might be well to withhold judgment until a thorough test has been made. The company is assured of at least a 1,000 bbl. well, the output from which, if necessary, can be dehydrated before being run. The Standard Oil Company has laid a line to the well and is prepared to accept the production as soon as the Marland finishes work.

The United Oil Company is at present coring at 4,231 feet in a gray sand which carries a little oil but it seems that each additional core is less favorable. The first good oil sand found around 4,200 feet was only a few feet in thickness. Since the Marland went on production at 4,280 feet, it is quite probable the United will continue coring. The United has staked several new locations and the Marland has staked a location for well No. 2 offsetting the United's No. 1 and another for No. 3 about 225 feet from the north line of the Associated's De Francis lease. The Associated, encouraged by the operations of the Marland and United Oil Companies, has resumed work on its De Francis lease following the recent blowout of No. 1 and is drilling ahead in No. 1-A at 980 feet. Rigs for Nos. 2 and 3 on this lease are being erected and locations have been staked for Nos. 4, 5 and 6. The Superior Oil Company's No. 1 Carpenter, about 500 feet East of the Shell's No. 1 Childs, a producer, and a few hundred feet North of the Shell's No. 10 Reyes, also producing, is still dry at 5,065 feet. Because of the proximity of this well to production it has been watched very closely for some time. The Superior is quite positive that the productive horizon around 4,200 feet was not passed up but several operators are wondering whether the Superior passed up a saturated gray sand. It is quite probable that the company will plug back and make a production test before abandoning.

Rosecrans.

Although the Rosecrans Field is of a later origin than the Dominguez Field, there is more development work being done in the former than in the latter. Operations extend over an area of several miles in a northwesterly - southeasterly direction from the Shell's No. 1 Leonis and the Pan-American's No. 1 Anderson in the north to the U. S. Royalties' No. 23 in the south. The Union picked up a nice-looking oil sand in No. 1 Trust in the western part of the field and landed a string of 8¼-inch casing at 4,551 feet. This well offsets the General Petroleum's No. 1 Amestoy to the east, which is drilling in a hard brown shale at 4,546 feet. The Union is still working with No. 1 Rosecrans at 4,041 feet and will probably complete either No. 2 on the same lease at 3,884 feet or No. 3 at 3,833 feet before bringing in the original well. No. 1 Chandler at 3,207 feet, No. 1 Gray at 4,149 feet, No. 1 Padelford at 3,753 feet and No. 1 Gordon at 3,500 feet, all located in this general vicinity, look good for early completions. The company is erecting a steel rig for No. 1 Horowitz, offsetting the Standard Oil Co.'s No. 1 Cowan to the north, and has staked a location for No. 6 Athens.

The General Petroleum secured a fairly good showing at 4,577 feet in No. 1 Vaughn, midway between the Union's No. 1 Athens in the north and the Superior's No. 1 Maxwell in the south. No. 1 Athens is producing from 4,971 feet, while No. 1 Maxwell is flowing from 4,403 feet. The showing found by the General Petroleum apparently logs with the production depth of No. 1 Maxwell and the slight upper showing found in No. 1 Athens, which was passed up. The General Petroleum's No. 1 Vaughn offsets the Barnsdall Oil Corp.'s No. 1 O'Dea to the north.

The Standard is only drilling one hole at present on its 40-acre Cowan lease and, although it is still dry at 4,300 feet, the Union has seen fit to offset it with No. 1 Horowitz, either because it looked good or to fulfill lease requirements.

The Associated is going ahead with No. 1 Brockley at 4,334 feet, No. 1 Haviland at 3,850 feet and No. 1 Higgins at 4,232 feet. No. 2 Higgins and No. 1 Hoge are rigging up.

Most Important Test

The Sentinel Oil Co.'s No. 1 Brown, drilling in the northern part of the field and looked upon as being the most important test in the field at present, is drilling ahead at 4,360 feet. It is reported that several minor showings have been found but none was of any consequence. C. C. Julian completed two rather bad fishing jobs, one in No. 1-A Community at 4,200 feet and the other in No. 9 Rosecrans at 3,990 feet, and is now drilling ahead in both wells. The St. Helens Petroleum encountered a little gas in No. 1 Rowell at 4,342 feet, but the company continued drilling and is now at 4,365 feet in a sandy brown shale. The U. S. Royalties cored at 4,560 feet, but the sample was negative and develop-

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ments seem to indicate that the well is outside the productive area of the Rosecrans sand and will have to be carried down in search of the Athens zone. The Pacific Petroleum's No. 1 Swesey, formerly the Morrison well, is held up with a fishing job as the result of a stuck core barrel at 4,519 feet.

The coming week should see a further increase in drilling as there are some eight or ten rigs in course of construction and several others ready to spud in. Scarcity of water has been a serious problem to operators. Several wells have had to shut down temporarily because of this trouble on several occasions and as a result several companies have installed their own water plants. The water famine is due primarily to the fact that this district is served with water for domestic purposes only through a three-inch main, by the city, and this supply is all that has been available for drilling purposes so far. When drilling operations reached their present active stage, many households in the Rosecrans and Athens districts found their water supply curtailed. A ruling was immediately established limiting the use of water for drilling purposes to the hours between 8 o'clock at night and 5 o'clock in the morning. Because of this several Rosecrans operators have been forced to drill their own water wells and install their own water systems. Among these are E. J. Miley, who is drilling two water wells, and the General Petroleum Corp., which is drilling one. Plenty of water is found at from 300 to 500 feet in depth and it is probable that other companies may utilize the surplus water of these two operators. The Union Oil Co., which is still the most extensive operator in the Rosecrans area, has met the emergency by piping water from its Hellman lease in the Dominguez Field.

Long Beach

True to expectations, the Marine Oil Co.'s well No. 17 proved to be a good one and should help to offset some of the normal decline in the Long Beach Field for the next few weeks at least. It was drilled to 5,046 feet and finished with a 4½-inch liner carrying 130 feet of 60-mesh screen casing and, although it is only flowing under a pressure of 300 pounds, the initial output was recorded as 2,680 bbls. The oil is of a good gravity, testing 27.1 degrees, but shows a cut of 12 per cent. The excessive amount of water present is attributed to drilling fluid and will probably be reduced after the well has cleaned itself out. The company is confronted with a rather difficult water problem in No. 16, which was drilled to 5,112 feet, but officials are confident of bringing in a commercial producer. No. 23, a really deep well, is fishing for liner with cable tools at 5,300 feet. The Ramsey Oil Co. has finished its last well at Long Beach, No. 4 B. Municipal, and indications point to a good producer. The Hub Oil Co. put No. 1 Beck on the beam after several months of idleness and it pumped 80 bbls. of 24.3 gravity oil from 4,140 feet. The A. T. Jergins Syndicate is battling with a water problem in No. 13 Trust, which is down 4,800 feet, and, although all efforts to date have been futile, hope is being held out for commercial production eventually. The cement job on the string of 6¼-inch casing, which was cemented through perforations at 3,275 feet, tested wet and before proceeding further the crew will attempt to locate the source of the water.

The Shell put No. 6 Alamitos on a production test after plugging back from 5,250 feet to 4,950 feet and, although a little oil was secured, the greater majority of the production was salt water. It appears that the cement plug is defective and, although the well will be put on the pump for a further test, it would not be surprising if the well is plugged back still further. The Shell finished several holes during the week but none was actually turned loose. No. 5 Coseboom was finished at 4,714 feet and this well, together with No. 5 Goddard at 4,999 feet and No. 4 Stakemiller at 4,625 feet, should be on production within a short time. The United Oil Co. took a core in No. 9 Haas at 5,281 feet and an examination disclosed a pulverized sand resembling talc. The compactness of the formation at the present depth precludes the possibility of completing a satisfactory well but cores are being taken quite frequently and something of interest may develop a little later. The outlook for deep production looks doubtful. The Delaney-Camp interests have come to the aid of the Bartholomae Oil Co. and entered into an agreement to deepen the latter's No. 3. The well will be drilled from 4,330 feet to 4,750 feet, each company to receive 50 per cent of the well's production after the cost of the additional hole has been met. The Bartholomae found iself in a rather bad financial condition as the result of an effort to make a deep producer of No. 4, which developed water trouble at 5,050 feet.

Santa Fe-Huntington Beach

There were no completions recorded at either Santa Fe Springs or Huntington Beach, the let-up being due to the limited amount of drilling being done. At Santa Fe Springs the Shell is getting ready to test out No. 6-A Slusher, the company's deep test at 6,100 feet. Indications are not very promising at the present depth and it is possible the company will resume drilling if the test proves unsatisfactory. The Standard Oil Co. got a showing of oil and gas in No. 10 San Gertrudes and this well looks like the company's next producer from the Meyer zone around 4,596 feet. The Petroleum Midway (California Petroleum) is working on well No. 2 on Mattern lease No. 2 at 2,750 feet and well No. 3 on Mattern lease No. 3 at 2,100 feet. No. 4 on Mattern lease No. 1 did not result in production at 4,908 feet and the company has placed it on the suspended list. In the Huntington Beach area the Standard is engaged in several work-over and clean-out jobs but none was successfully completed. The company is contemplating the abandonment of No. 1-A Orange County Title, a deep northwest well at 5,510 feet. A string of 6¼-inch casing was landed at 5,458 feet and a cement plug put in bottom but on a recent test the well showed nothing but water. The Petroleum Midway is plugging back well No. 2 on Columbia lease No. 2 from 6,550 feet and will attempt to produce from one of the upper zones. The Pan-American has plugged back No. 2 from 4,820 feet to 3,289 feet and No. 3 from 4,756 feet to 3,420 feet and should be in a position to make a production test within 10 days. The Shell Oil Co. has plugged back No. 8 Ashton from 4,650 feet to 4,200 feet and is making preparations to put the well on the beam.

Miscellaneous Drilling

Developments in the Rideout Heights section of the old Whittier Field were not very encouraging for early production. The O'Donnell Refining Co. is experiencing considerable difficulty with No. 2 Strong and the company has found it necessary to rig up cable tools in order to drill the cement out of the 3-inch. It will be remembered that the 4¾-inch oil string which was to be used in finishing the well stuck about 1,000 feet off bottom and it became necessary to run in a string of 3-inch casing. Considerable time has been lost in getting under way and it will probably be a couple of weeks before a test can be made. The Petroleum Midway is experiencing all the difficulties incidental to deep drilling in its four tests and as a result they are all in a bad shape. No. 1 Pellisier is fishing for drill pipe at 4,278 feet and No. 1 Rideout will require another cement job to effect a shut off. No. 1 Seward is held up with a buckled casing, while No. 1 Witte has encountered a very hard sand at 4,485 feet. The Associated is just getting under way with its second hole on the Gregg lease after losing the first because of mechanical trouble and is reaming at 860 feet. The Standard made the only real progress during the week and carried No. 1 Patton to 4,300 feet. Over in the old Whittier Field the Standard has No. 21 Home down to 2,200 feet and the showing picked up by the Ocean View Oil Co. is looking better as the hole goes down. The company is drilling ahead at 2,816 feet.

Over at Newport, conditions have become somewhat settled and the few operators who have been hampered for some time because of bad roads and water and power shortage are again getting under way. The Interstate's deep test, No. 1 Heights, seems to be in a bad shape at 3,468 feet with a stuck drill pipe and, although several days have been spent in circulating with oil, no progress has been made. As there is practically no other way of loosening the drill pipe, the hole seems to be lost.

The Petroleum Midway landed a string of 6¼-inch casing in No. 8 Richfield Consolidated at 4,325 feet in the Richfield district. After plugging back to 4,323 feet a test was made but a water shut off was not effected and a second plug has now been set at 4,263 feet, the result of which will be known within a few days when another test will be made. Water at this depth has always been a source of worry in this field and, although the formation looked encouraging, in view of past experiences, the outcome looks doubtful.

The Standard Oil Co. has plugged back No. 1 Wagner in the Anaheim district from 5,635 feet to 3,771 feet and is waiting for the cement plug to set before testing out. E. J. Miley, drilling on property secured from the Marland Oil Co., is going ahead at 1,900 feet.

The Oakridge Oil Co.'s No. 1 Kramer, the deepest well in the Bandini area, is drilling ahead in a sandy shale at 5,400 feet. The company's No. 1 Gage is standing suspended at 5,035 feet, while the casing is being salvaged in No. 1 Rossi at 4,730 feet. The Wilshire Oil Co. is drilling No. 2 Bandini a few miles away and shows 2,560 feet of hole, the formation being a hard sand.

Secures Inglewood Lease

The Standard Oil Co. is still doing considerable work in the Inglewood-Hawthorne district and during the past week announced that a lease had been secured on 620 acres belonging to Clara Baldwin Stocker. It is reported that $350,000 was paid for the lease on a one-fifth royalty basis. The Standard is apparently satisfied that this area is worthy of development, notwithstanding the venture is in purely wildcat territory. The company is undoubtedly looking for another structure similar to that existing at Rosecrans and seems to be justified in both this expenditure and the $500,000 bonus recently paid to the Los Angeles Investment Co. for a lease nearby. The company's geologists apparently believe the structure found at Dominguez comes up again at Rosecrans and may, perhaps, come up again at Inglewood. The northern limits of the Dominguez Field have been definitely established but the northern boundary of the Rosecrans Field, a few miles to the north, are still undetermined. The Pan-American, Shell and several other operators are drilling over 2 miles north of the Union's No. 1 Athens at Rosecrans and may extend the limits of this field north to this point. Surface indications appear to be very favorable in this vicinity, but, of course, this is no criterion of what can be expected below.

The Bixby Hills-Inglewood acreage of the Standard is 3 or 4 miles beyond the holdings of the Shell and Pan-American in the north Rosecrans area and the recent shallow showings on its Los Angeles investment tract has stimulated interest in this vicinity. The company's No. 1 Los Angeles extension is drilling in a sandy brown shale at 5,540 feet. No. 1 Farrel is going ahead in a brown sandy shale at 4,800 feet and casing is being set in No. 1 Potter-Smith at 3,875 feet. On the Los Angeles investment lease, No. 1 is drilling at 2,100 feet, while No. 2 has been suspended at 1,018.

The Petroleum Producers secured a small showing at 5,260 feet in their test at La Mirada and after going to 5,283 feet discontinued drilling in order to set a string of casing and make a test. The Standard's No. 1 Culp at Los Nietos has been cemented at 3,065 feet. The Shell Oil Co. is making preparations to drill out the cement in No. 1 Bixby at Seal Beach and is scheduled to make a production test within a short time. The bottom of the hole is 4,740 feet and, although there is some oil present in the sump, it is believed to be due to circulating fluid.

Wheeler Ridge Showing

The Standard picked up an excellent showing in well No. 10 at Wheeler Ridge at 4,325 feet and indications point to a good well. The General Petroleum spudded in at Comanche Point during the week and made 288 feet of hole. The Standard has erected a rig at an Emedio on Section 28-11-22 and should spud in within the next two weeks. The Union Oil Co. spudded in its Rio Bravo test, a wildcat on Section 4-29-25, and shows 490 feet of hole. On the Kern River Bluffs, the Pan-American encountered a very hard formation at 3,640 feet, permitting the addition of only a small amount of hole during the week. The St. Helens, on Section 14-29-28, is drilling at 1,250 feet, while the Central Oil Co., on Section 26-28-28, is going ahead at 2,165 feet. The Marland's Kern River extension well on 11-28-27 is standing cemented at 2,509 feet, a string of 10-inch casing being landed to protect the hole. The Main Oil Co.'s well at Wasco is redrilling at 3,450 feet, approximately 250 feet off bottom. The General Petroleum is going ahead nicely in No. 1 Oschner in the Kettleman Hills, the bit being in a hard brown shale. The Associated, Bolsa Chica and Marland Oil companies only made a small amount of hole during the week. E. J. Miley made good footage in No. 1 Smith in San Luis Obispo County, on Section 21-32-12, and has now reached a depth of 2,012 feet. It is reported that the Channel Oil & Development Co., financed by Santa Barbara people, secured a fair showing of gas in their wildcat on Section 29-4-27. The company's geologist was very enthusiastic over a core taken at this depth and expects to secure a commercial producer. A slight gas showing was the best indication which the well has had to date, but the test, if carried to completion, should be interesting to watch.

TANKER SHIPMENTS FROM LOS ANGELES TO ATLANTIC AND GULF COAST PORTS

Following is a list of tankers, date departed, destination, kind of cargo and amount in barrels:

Cape Kenlopen, August 25, New York, crude	76,516
Albert Hill, August 25, Philadelphia, crude	76,431
Standard,, August 27, New York, crude	120,873
John D. Archbold, August 28, New York, crude	130,993
Paul H. Harwood, August 29, New York, fuel	75,996
F. Q. Barstow, August 29, New York, crude	115,011
E. T. Bedford, August 29, crude	110,923
Swift Arrow, August 30 ,Fall River, refined	80,952
Tustem, August 31, Philadelphia, crude	73,521
Agwismith, August 31, New York, crude	110,557
Coastwise	
Lubrico, August 26, Point Wells, fuel	85,438
Alden Anderson, August 26, Avon, crude	69,740
Los Alamos, August 27, Seattle, refined	35,316
J. A. Moffett, August 27, Astoria, fuel	65,504
D. G. Scofield, August 27, Richmond, crude	78,962
W. S. Rheem, August 27, Richmond, crude	92,482
Los Angeles, August 28, Martines, crude	75,841
Frank H. Buck, August 28, Avon, crude	65,094
Dilworth, August 28, Seattle, fuel	72,202
W. S. Miller, August 29, Richmond, crude	74,539
Utacarbon, August 28, Martinez, crude	76,581
Lebec, August 30, Portland, fuel	72,748
Exports	
Meton, August 26, Manila, fuel	77,256
Anatina (Br.), August 27, Japan, fuel	48,416
Adna (Br.), August 27, China, fuel	48,972
Salina, August 30, Honolulu, fuel	78,072
Liss (Nor.), August 31, England, refined	68,261
San Ugon (Br.), August 31, England, refined	68,231
From San Francisco	
Empire Arrow, August 25, Shanghai, refined	32,595
Atlas, August 26, Grays Harbor, refined	16,820
H. T. Harper, August 27, Point Wells, refined	31,760
Richmond, August 27, Point Wells, fuel	63,141
Charlie Watson, August 31, Grays Harbor, refined	12,715
From Port San Luis	
Argyll, August 29, Balboa, fuel	32,740

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2. It never fouls the line because knife cannot be brought in engagement with cable without jarring down—and jarring can take place only when knife body strikes top of rope socket.
3. It never leaves ragged strands to be milled off.
4. The widespread double guide for drill cable, combined with extreme compactness of knife body itself, eliminates trouble of knife body and sand line wrapping themselves around drilling cable to be cut.
5. The Montgomery Rope Knife is cheaper because jars, knife and sinker bar are combined in one design.
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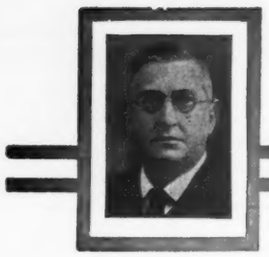


North-Central Texas Field

By Dan F. Dugan

Twenty-two producers in 32 completions, with loss of 320 bbls. daily compared with preceding week. Texon Co.'s No. 1 University, Reagan County, makes 2,610 bbls. first 24 hours. Perkins and others' No. 7 Burnett, Wichita County, deepened, makes 460 bbls. Poe and Wilson and others' No. 6 Albin, 240 bbls.

FORT WORTH, Tex., Sept. 8.—Production runs reported for the seven-day period ending September 4 from the North Texas Field amounted to 123,170 bbls. against 123,490 bbls. daily for the previous seven days, a loss of 320 bbls. daily.

Two of the producing districts reported substantial increases, the largest coming from the wildcat pools, which increased its previous week's production by 1,565 bbls. daily. This gain was reported from Reagan County on account of the completion of the Texon Land & Development Co.'s No. 1 University which is credited with flowing 2,610 bbls. the first 24 hours after completion. The Electra district made a small increase of 450 bbls. daily. Decreases were reported from Burkburnett of 310, the Iowa Park district, 1,050; Stephens County, 815; Eastland County, 160 bbls. daily.

Covering the entire field a total of 32 completions were reported, of that number 22 were oil producers, 9 dry holes and one gas well in Throckmorton County.

The largest producer reported was the Texon Land & Development Co.'s No. 1 University, in Reagan County, for 2,610 bbls. at 3,027 feet. In Wichita County, the Perkins and others' No. 7 Burkburnett led all others in that district. It is credited with being a 460-bbl. producer at 1,810 feet. This well was an old producer and was drilled 110 feet deeper from its former producing level.

Archer County did not show much in the completion report, its best well was the Clark and others' No. 1 Scruggs for 150 bbls. at 1,345 feet. Callahan County reported the largest initial well for some weeks past, the Poe & Wilson and others' No. 6 Albin for 240 bbls. at 2,490 feet.

Carson County

It is reported from Amarillo that the Pan-Tex Pipe Line Co. expects to be running oil this week, according to announcement made by the management.

The 6-inch line from Amarillo to the Carson County Field, with laterals to several wells, has been completed and tested. The pump station has been finished and machinery installed and as soon as the storage tanks are completed the first run of oil will be made, a distance of around 50 miles.

The near completion of new wells in both Carson and Hutchinson Counties of the Texas Panhandle Field and continuation of completed wells to hold up to their flush production are outstanding features at this time in the Plains district.

The Skelly Oil Co.'s No. 1 Burnett, in the northeast corner of Section 93, Block 5, Carson County, offsetting a producing well of The Texas Co., is being completed and rated a 200-bbl. to 400-bbl. well. The Skelly Oil Co. well is surrounded by producing wells of equal production within a quarter to 2 miles in each direction.

Several wells in the north Carson County district are holding up to their flush production after having been producing for several months.

With a water supply available from a recently completed well, Pantex, the new south Hutchinson County oil town, is growing rapidly. Telephone exchange, grocery, cafe, laundry, drug store, hotels, auto supply and garages represent the business houses completed to date. Application has been made to postal authorities for Pantex to be designated as a post office.

Archer County Storm

A terriffic wind storm leveled around 75 derricks in different sections of Archer County. About 20 were blown down in the Riner-Bailey district. In the Atlantic Pool, the Franklin-Dawson Co. lost nine; the Atlantic Producing Co. lost three, on the White tract, the Magnolia Co. lost three; the Tex-O-Kan also lost a derrick in that district. Other derricks destroyed were scattered over the county. Band wheels, bull wheels and parts were blown in all directions. A number of barages were demolished but there were no reports of injuries.

The Texas Co.'s No. 1 Andrews was placed on the pump and is making 140 bbls. at 1,470 feet. Several new locations have been made in the vicinity and it is expected other tests will be drilling in a few days.

The Sun Oil Co. has a derrick up and is installing machinery for No. 1 Andrews which will offset The Texas Co.'s Andrews producer to the east. The new well will be in the northwest corner of Section 136, Robert Carson subdivision.

The Woodburn Oil Corp.'s No. 8-A Wilson, after being in the limelight for some little time by reason of its promise to open up a new deep pay around the 1,900-foot depth, did not find a producing sand and has been abandoned at 2,050 feet.

With the semicompletion of three tests of the Consolidated Oil Co. (Knight & Hines) in the Ragle Pool, northeast of Olney, three more producers have been added to that pool. Tubing is being run and the wells will be placed on the pump immediately. From present indications all three promise to average around 75 bbls. each.

The Shamrock Oil Co. has made a location on its Boren lease, about 150 feet each way from the northwest corner of the south half of Block 9.

Jeffers & Newby's No. 1 Hausler, about 1 mile west of the Ragle producers, is expected to reach the sand in a few days.

Wichita County Operations

Several producers showing average initial production were completed this past week, the largest was the Perkins and others' No. 7 Burnett, south of Fowlkes Station, for 400 bbls. at 1,810 feet. This well was an oil producer from the 1,700-foot level. As it practically became dry it was drilled to the deeper sand.

The United Central Oil Corp. has semicompleted No. 11 McCarty, in the Beaver Creek district, an estimated production of 400 bbls. per day. The well is located in the southeast corner of the 30-acre lease, encountered the pay at 1,663 feet and was drilled to 1,685 feet when the oil arose to the top of the casing and made a small flow. It was placed on the swab and in the first 12 hours made 200 bbls. No. 12, at practically the same depth, is showing oil and is rigging to swab.

A number of tests in the Hill & Roberts Pool and along the Wichita River are drilling, but in the event of making producers, would not add to the present producing areas.

In the shallow fields to the southeast and south of Burkburnett, a number of tests are drilling, while others are shut down for lack of water for drilling purposes.

Wichita County Completions

Griswold Oil Co.'s No. 4 Parker, 35 bbls. at 1,254 feet; Magnolia Petroleum Co.'s No. 8 Beach, 20 bbls. at 1,195 feet; Pace and others' No. 1 Donohoo, 25 bbls. at 1,545 feet; Bower and others' No. 5 Peeler, 75 bbls. at 1,660 feet; Magnolia Petroleum Co.'s No. 37 Rio Bravo, 30 bbls. at 1,775 feet; Perkins and others' No. 7 Burnett, 460 bbls. at 1,810 feet; Petroleum Production Co.'s No. 6 Maer, 50 bbls. at 1,660 feet; Ryan and others' No. 23 Nance, 10 bbls. at 1,675 feet; same company's No. 24 Nance, dry at 1,460 feet; Texhoma Oil & Refining Co.'s No. 1 Burnett, 245 bbls. at 1,815 feet.

Wichita County Drilling

Duncan and others' No. 4 Rhodes, drilling in brown shale at 690 feet. Griswold Oil Co.'s No. 5 Parker, set 6⅝-inch casing on top of oil sand at 1,260 feet; Cochran and others' No. 1 Weath, drilling sand showing oil at 1,697 feet; Darr and others' No. 1 Jenne, drilling in rock at 1,400 feet; Grisham and others' No. 1 Walling, drilling in shale at 715 feet; Kuhn and others' No. 1 Myers, standardizing at 1,360 feet; Miller and others' No. 1 Evans, drilling at 1,500 feet; Magnolia Petroleum Co.'s No. 9 Beach, drilling in gumbo at 285 feet; No. 106 Reilly, drilling at 1,245 feet; Ascott Co.'s No. 26 Keller, a fishing job at 1,560 feet; Apple and others' No. 2 Jennings, swabbing some oil and will be put on pump at 1,975 feet; Baldwin and others' No. 2 Fisher, drilling at 340 feet. Brewer and others' No. 1 Henson, drilling in brown shale at 1,015 feet; Burnett Ranch Oil Co.'s No. 6 Burnett, drilling in blue shale at 1,745 feet; Burkland and others' No. 1 Burnett, bailing oil and water at 1,565 feet; Camp Oil & Gas Co.'s No. 11 Douglas, rigging to pump and test oil sand at 1,955 feet; Electra Gulf Oil Co.'s No. 1 Overby, drilling at 1,450 feet; Elliott and others' No. 1 Jennings, drilling at 400 feet; Empire Gas & Fuel Co.'s No. 4 Pierce, drilling in shale at 1,185 feet; Gordon Oil Co.'s No. 1 Burnett, drilling broken sand at 1,820 feet; Johnson and others' No. 1 James, drilling in brown shale at 700 feet. Lee and others No. 3 McCarty, rigging to pump and test oil sand at 1,695 feet; Magnolia Petroleum Co.'s No. 9 Douglas, rigging to test at 1,070 feet; No. 7 Waggoner, underreaming 5⅞-inch casing at 1,310 feet; Mid-Kansas Oil & Gas Co.'s No. 1 Waggoner, drilling in rock at 1,000 feet; O'Donohoe and others' No. 1 Kemp, will core oil sand at 1,645 feet; Petroleum Production Co.'s No. 7 Maer, drilling in gumbo at 200 feet; Rio Bravo Oil Co.'s No. 4 Rio Bravo, drilling at 500 feet; Section Two Oil Co.'s No. 3 Burnett, drilling at 1,450 feet; The Texas Co.'s No. 9 Burnett, set 6⅝-inch casing and will drill deeper at 1,800 feet; United Oil Co.'s No. 1 McCarty, swabbed 200 bbls. in 12 hours at 1,685 feet; No. 12 McCarty, rigging up to completed at 1,656 feet; Humble Oil & Refining Co.'s No. 3 Burnett, drilling at 1,610 feet.

Wilbarger County Drilling

Bridwell and others' No. 1 Dill, drilling at 1,150 feet. Dill and others' No. 1 Dill, drilling in shale at 1,456 feet; Hart and others' No. 1 Smith, drilling at 1,120 feet; Magnolia Petroleum Co.'s No. 1 Rogers, drilling at 200 feet; Winnie Oil Co.'s No. 1 Bond, spudding at 10 feet.

Archer County Completions

Texhoma Oil & Refining Co.'s No. 1 K. & K., 50 bbls. at 1,490 feet; Wil and others No. 4 Jackson, dry at 1,9 feet; The Texas Co.'s No. 1 Andrew 140 bbls. at 1,470 feet; Featherstone an others No. 1 Farmer, 45 bbls. at 1,2 feet; Clark and others' No. 5 Scrugg 150 bbls. at 1,335 feet; Shamrock Oi Co.'s No. 8 Goldsmith, 75 bbls. at 1,2 feet; No. 9 Goldsmith, 75 bbls. at 1,2 feet.

Archer County Drilling

Drilling: Electra Gulf Oil Co.'s No. 1 K. & K., drilling in shale at 1,505 fee Texhoma Oil & Refining Co.'s No. 7 K. & K., drilling at 1,140 feet; Barnes and others' No. 3 Wilson, has 700 feet of oil in hole and drilling at 1,605 feet; Carter and others' No. 1 White, cleaning out and drilling oil sand at 1,600 feet; No. 1 Parrish, drilling at 1,480 feet; Empire Gas & Fuel Co.'s No. 18 Wilson, drilling sand showing oil at 1,625 feet; Evans and others' No. 1 Miller, cementing casing at 1,634 feet; Humphreys Oil Co.'s No. 4 White, tested 8 bbls. in 24 hours and drilling at 1,625 feet; Landreth Production Co.'s No. 1 Oil Investment Co. testing oil sand at 1,485 feet; Magnolia Petroleum Co.'s No. 2 Parrish, has 600 feet of oil in hole and drilling at 1,505 feet; Featherstone and others' No. 3 Nichols, cleaning out, sand showing oil at 1,610 feet; Sheets and others' No. 1 Albright, drilling at 1,480 feet. Shipley and others' No. 1 Miller, cementing casing on top of oil sand at 1,630 feet; Simms Oil Co.'s No. 3 Nichols, drilling at 1,255 feet; No. 4 Nichols, drilling at 400 feet; Staley and others' No. 7 Wilson, drilling in shale at 1,000 feet; Wilmot Farm Oil Co.'s No. 7 Wilson, cleaning out and drilling broken sand at 1,600 feet; Woodburn Oil Corp.'s No. 8-A Wilson, will be abandoned at 2,050 feet; Bagley and others' No. 1 Waggoner, drilling in soft rock at 1,350 feet; Dilday and others' No. 1 Farmer, drilling at 1,405 feet; Magnolia Petroleum Co.'s No. 4 Llewellyn, has 500 feet of oil in hole and drilling at 1,410 feet; McGregor and others' No. 1-B Llewllyn, has 700 feet of oil in hole and will complete at 1,403 feet; Consolidated Oil Co.'s (Knight & Hines) No. 2-B Ragle, showing for 100 bbls. estimated at 1,070 feet; No. 2-D Ragle, 60 bbls. estimated at 1,070 feet. No. 2-C Ragle, 20 bbls. estimated at 1,075 feet; Daniels and others' No. 1 Lester, drilling in shale at 1,370 feet; Hart and others' No. 1 Cowan, drilling at 1,605 feet; Jeffers and others' No. 1 Hausler, drilling at 1,010 feet; Lowery and others' No. 1 Harbison, drilling at 1,100 feet; McLean and others' No. 1 White, drilling at 1,295 feet; Murchison and others' No. 5 Goldsmith, drilling at 950 feet; Nebraska Oil Co.'s No. 1 Holtsek, drilling at 600 feet; Anderson and others' No. 1 Benson, drilling at 360 feet; Shamrock Oil Co.'s No. 10 Gholson, drilling in brown shale at 400 feet; No. 11 Gholson, drilling at 1,150 feet. Swastika Oil Co.'s No. 1 Richardson, drilling in shale at 1,060 feet; World Publishing Co.'s No. 1 Herron, drilling in rock at 940 feet.

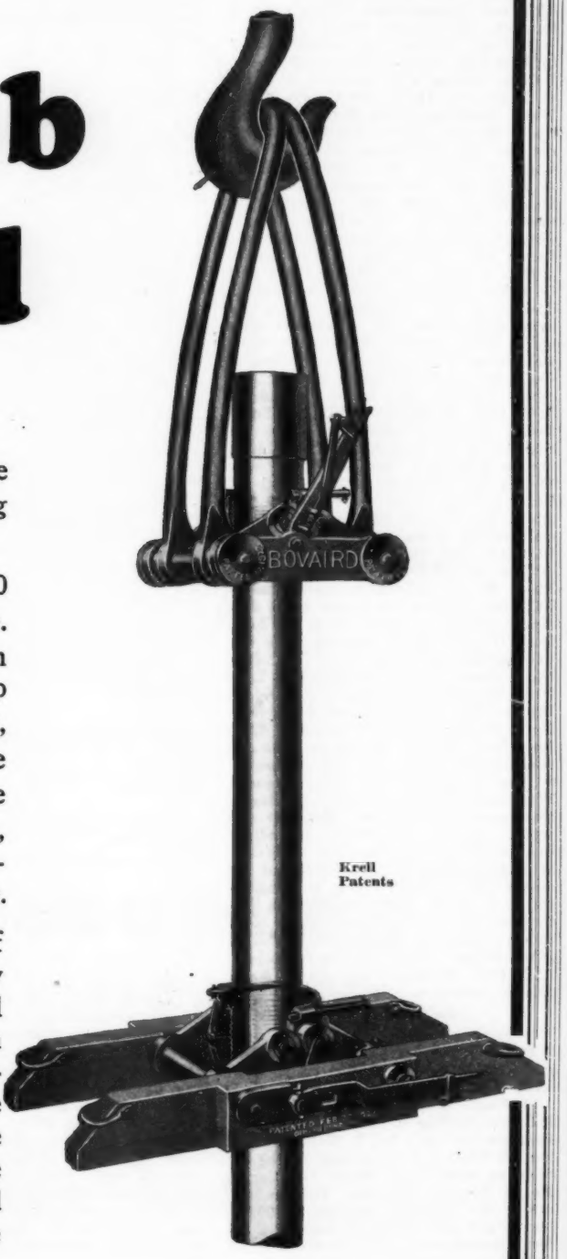
Young County

Completions: Humble Oil & Refining Co.'s No. 1 Graham, dry at 3,045 feet.

Drilling: Cheney and others' No. 1 Driver, preparing to abandon at 2,716 feet; Dunn and others' No. 1 Johnson, drilling in shale at 2,240 feet; Foster and others' No. 2 Mahoney, fishing for casing at 3,886 feet; Herbert Drilling Co.'s No. 1 Johnson, running 10-inch casing at 650 feet; McGarr and others' No. 1 Johnson, drilling in lime at 3,250 feet; No. 1 Scarborough, drilling in shale at 2,200 feet; Miller and others' No. 1 Hume, fighting a cave at 2,700 feet; Reed and others' No. 1 Graham, fishing for bit at 2,749 feet; Seaboard Oil & Gas Co.'s No. 1 Stoffer, drilling at 2,600 feet; Simms Oil Co.'s No. 1 Willis, drilling at 620 feet. Stovall and others' No. 2 Stovall, drilling at 2,910 feet; Union Oil Co.'s No. 1 Keithley, sidereaming 8-inch casing at 2,947 feet.

Completions: Brown and others' No. 1

Fishing Job Prevented



The illustration below shows the Blubaugh No. 9 of the Comar Oil Co. in the Tonkawa Pool. This well is being drilled by the diamond core method.

Some time ago this rig was pulled in while pulling 1,900 feet of 4½" drill pipe. The left sill, on which a Bovaird Grip Spider was setting, gave way, letting the Spider down on one side. It held its grip, there being "no tension" lost on the pipe.

This was a test of strength which only the best of material and construction could have withstood. Had the Spider not held the pipe, an expensive fishing job would have resulted, as the diamond bit would probably have been badly damaged.

The factors of strength, speed and safety are important features of the Bovaird Grip Casing and Tubing Elevators and Spiders.

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Hudspeth, dry at 3,275 feet; The Texas Co.'s No. 20 Black Brothers, 5 bbls. at 3,390 feet; Sinclair Oil & Gas Co.'s No. 9 Henderson, 5 bbls. at 3,190 feet; States Oil Corp.'s No. 1 Williamson, dry at 3,920 feet; Swensondale Oil Co.'s No. 1 Houston, dry at 2,045 feet.

Drilling: Critten and others' No. 6 Cobb, drilling in shale at 2,230 feet; No. 7 Cobb, drilling with hole full of water at 1,140 feet; Hoffer Oil Corp.'s No. 1 Webb, spudding; Ivan Petroleum Co.'s No. 2 Martin, showing 2,000,000 feet of gas and may drill deeper at 3,960 feet; Liner and others' No. 2 Brown, drilling at 2,515 feet; Mid-Kansas Oil & Gas Co.'s No. 3 Lowe, Acct. 1, drilling in shale at 2,055 feet. No. 4 Lowe, Acct. 2, sidereaming 8-inch casing at 2,415 feet; Pierce and others' No. 1 Crudington, drilling at 3,200 feet; Prairie Oil & Gas Co.'s No. 15 Atkins, drilling by tools at 3,263 feet; No. 1 Caldwell, fishing for bailer at 3,140 feet; No. 2 Caldwell, drilling in brown shale at 500 feet; Rochelle and others' No. 2-A Sweeney, drilling in soft rock at 2,050 feet; Swasey and others' No. 2 Couger, fishing for tools at 2,000 feet; Swensondale Oil Co.'s No. 1 Echols, drilling at 2,000 feet; Texas Pacific Coal & Oil Co.'s No. 5 Rogers, drilling in Ellenberg lime at 4,535 feet; Walker and others No. 4 First National Bank, drilling at 825 feet; Weekly and others' No. 1 Cobb, showing oil and gas and drilling in gray lime at 3,260 feet. Barnhart and others' No. 1 McClure, drilling at 370 feet; Brown and others No. 4 Brown, drilling in black lime at 3,725 feet; Carter and others' No. 1 Jennings, drilling in brown shale at 1,000 feet; Humble Oil & Refining Co.'s No. 1 O'Laughlin, spudding; Lewis Oil Corp.'s No. 2 Stoker, drilling by casing at 3,866 feet; Magnolia Petroleum Co.'s No. 9 Brown, drilling by tools at 3,133 feet; No. 2 Brown, cementing casing at 3,845 feet; No. 5 Brown, drilling by tools and cementing at 3,821 feet; No. 6 Brown, drilling by tools at 3,215 feet; Magnolia Petroleum Co.'s No. 1 Taylor, drilling in black rock at 2,830 feet; McLester and others' No. 1 Robertson, spudding; Prairie Oil & Gas Co.'s No. 1 Stoker, drilling by casing at 3,875 feet; Root and others' No. 1 Yoes, trying to plug off water at 2,200 feet; Snowden & McSweeney's No. 1 Jones, drilling in black rock at 4,306 feet; Texas Pacific Coal & Oil Co.'s No. 1 Hand, drilling by tools at 2,132 feet; Triplehorn and others' No. 1 Adams, drilling at 1,380 feet.

Eastland County

Completions: Reclamation Oil Co.'s No. 2 Bond, 80 bbls. at 3.585 feet; McBride and others' No. 1 White, 20 bbls. at 2,790 feet.

Drilling: Arkansas Fuel Oil Co.'s No. 3 Lyerla, drilling in shale at 2,170 feet; Brothers Oil Co.'s No. 1 Watson, showing 2,000 000 feet of gas and fishing for tools at 3,130 feet; Mogul Oil Corp.'s No. 2 Earnst, spudding; Parsons and others' No. 1 Moles, showing 12,000,000 feet of gas and fishing for tools at 3.107 feet; Reclamation Oil Co.'s No. 6 Bond, drilling at 1,940 feet; States Oil Corp.'s No. 8 Quiet, drilling at 710 feet; Cardinal Oil Co.'s No. 2 Matthews, drilling in blue shale at 2.400 feet; Riley and others' No. 1 McClellan, drilling at 990 feet; Rosenfield and others' No. 1 Brunett, will set packer at 3,198 feet; The Texas Co.'s No. 1 Ramsey, drilling in Caddo lime at 3,285 feet; Texas Development Co.'s No. 1 Rushing, topped Caddo lime and drilling at 3,070 feet.

PRODUCTION REPORT

Week Ending September 4, 1924

Burkburnett	
Barkley & Meadows	1,200
Humble Oil & Ref. Co.	485
Gulf Production Co.	895
Magnolia Petroleum Co.	3,100
McMahon Oil Co.	400
Panhandle Oil & Ref. Co.	340
Prairie Oil & Gas Co.	30
Sinclair Oil & Gas Co.	75
The Texas Co.	580
Texhoma Oil & Ref. Co.	460
Miscellaneous	10,400
Total	17,965
Electra	
Empire Gas & Fuel Co.	1,420
Humble Oil & Ref. Co.	230
Griswold Oil Co.	215
Gulf Production Co.	930
Magnolia Petroleum Co.	4,440
McMahon Oil Co.	205
Panhandle Oil & Ref. Co.	100
The Texas Co.	4,355
Texhoma Oil & Ref. Co.	2,135
Miscellaneous	7,060
Total	21,040
Iowa Park, Etc.	
Griswold Oil Co.	30
Gulf Production Co.	35
Humble Oil & Ref. Co.	30
Panhandle Oil & Ref. Co.	120
Texhoma Oil & Ref. Co.	75
Miscellaneous	4,555
Total	4,845
Archer County—	
Empire Gas & Fuel Co.	1,130
Griswold Oil Co.	975
Gulf Production Co.	300
Humble Oil & Ref. Co.	260
Magnolia Petroleum Co.	290
Panhandle Oil & Ref. Co.	480
Prairie Oil & Gas Co.	1,830
The Texas Co.	525
Texhoma Oil & Ref. Co.	2,530
Miscellaneous	20,040
Total	28,360
Petrolia—	
Gulf Production Co.	60
Magnolia Petroleum Co.	30
The Texas Co.	80
Miscellaneous	260
Total	430
Total North Texas	72,640
Stephens County	
Empire Gas & Fuel Co.	110
Gulf Production Co.	1,540
Humble Oil & Ref. Co.	1,140
Magnolia Petroleum Co.	925
Mid-Kansas Oil & Gas Co.	2,175
Prairie Oil & Gas Co.	840
Sinclair Oil Co.	165
The Sun Co.	525
The Texas Co.	2,190
Texas Pacific Coal & Oil Co.	1,570
Miscellaneous	8,450
Total	19,630
Eastland County	
Gulf Production Co.	430
Humble Oil & Ref. Co.	100
Magnolia Petroleum Co.	520
Panhandle Oil & Ref. Co.	405
Prairie Oil & Gas Co.	680
Sinclair Oil & Gas Co.	520
The Texas Co.	370
Texas Pacific Coal & Oil Co.	900
Miscellaneous	2,945
Total	6,870
Other Fields	
Strawn—	
Texas Pacific Coal & Oil Co.	335
Miscellaneous	665
Total	1,000
Moran—	
Empire Gas & Fuel Co.	75
Humble Oil & Ref. Co.	465
The Texas Co.	150
Texhoma Oil & Ref. Co.	170
Miscellaneous	2,300
Total	3,160
Coleman County—	
Miscellaneous	130 130
Brown County—	
Miscellaneous	560 560
Comanche-Eastland—	
Humble Oil & Refining Co.	210
Magnolia Petroleum Co.	1,025
Prairie Oil & Gas Co.	195
Sinclair Oil & Gas Co.	70
The Texas Co.	235
Texas Pacific Coal & Oil Co.	130
Miscellaneous	4,580 6,445
Young County—	
Gulf Production Co.	95
Sinclair Oil & Gas Co.	485
Panhandle Oil & Refining Co.	270
The Texas Co.	55
Miscellaneous	3,125
Mitchell County	1,640
Reagan County	5,940
Jack County	20
Scurry County	70
Carson County	1,000
Hutchinson County	35 12,735
Total central Texas and Panhandle	50,530
Total this week	123,170
Total last week	123,490
Loss	320

Wildcats

Grayson County — Completions: Shankle and others' No. 1 Marshall, dry at 2,300 feet.

Throckmorton County.—Completions: Whatley and others' No. 1 Todd, 5,000,000 feet of gas at 826 feet.

Drilling: Humble Oil & Refining Co.'s No. 1 Stubblefield, underreaming 8-inch casing at 2,510 feet; Larkin and others' No. 1 Conger, cleaning out and swabbing 10 bbls. daily at 1,429 feet; Shamrock Oil Co.'s No. 1 McKnight, drilling in shale at 2,520 feet; Young Brothers' No. 1 Steele, drilling in red sand at 720 feet.

Baylor County—Completions: Magnolia Petroleum Co.'s No. 1 Portwood, dry at 1,802 feet.

Drilling: Dallas Oil Co.'s No. 1 Shawver, drilling in shale at 950 feet; Independent Oil Co.'s No. 1 Robertson, drilling in rock at 2,200 feet.

Palo Pinto County—Completions: Buffalo Brazos Oil Co.'s No. 1 Dalton, dry at 4,098 feet.

Drilling: Guarantee Royalty Co.'s No. 1 Mosley, drilling at 2,440 feet; Talbot and others' No. 1 Slimp, drilling in brown shale at 600 feet; Phillips and others' No. 1 Stringer, drilling at 530 feet; Strawn Coal Co.'s No. 2 Strawn, spudding.

Callahan County—Completions: Poe & Wilson and others' No. 6 Albin, 240 bbls. at 2,490 feet.

Drilling: Blair and others' No. 1 Cathey, drilling at 700 feet; Dudley Oil Co.'s No. 1 Moore, trying to set packer at 1,841 feet; Junior Oil Co.'s No. 1 Huntington, drilling in shale at 1,400 feet; Prewitt and others' No. 1 Crane, drilling at 275 feet; No. 1 White, drilling at 1,110 feet; No. 1 Windham, drilling at 725 feet; Shackelford and others' No. 1 Allen, drilling in soft rock at 1,600 feet; The Texas Co.'s No. 1 Isenhower, drilling at 1,770 feet; Texas Pacific Coal & Oil Co.'s No. 1 Biggerstaff, drilling in lime rock at 3,090 feet.

Brown County—Completions: Curry and others' No. 1 Chambers, 30 bbls. at 1,295 feet.

Drilling: Anderson and others' No. 1 Wheeler, drilling with hole full of water at 2,270 feet; Avery and others' No. 1 Cox, will shoot lime at 2 505 feet; Gilman and others' No. 5 Newlen, drilling at 700 feet; Moore and others' No. 1 Westerland, showing 5 bbls. a day production and drilling at 1,285 feet.

Reagan County—Completions:: Texon Land & Development Co.'s No. 1 University, 2,610 bbls. at 3.027 feet.

Drilling: Arkansas Fuel Oil Co.'s No. 1 University, fishing for bit at 400 feet; Big Lake Oil Co.'s No. 12 University, spudding; Dunning Oil Co.'s No. 1 Sawyer, drilling 400 feet below production depth at 3,433 feet; Texon Land & Development Co.'s No. 2 University, shut down for 6-inch casing at 2,821 feet.

Hutchinson County—Drilling: Barnum and others' No. 1 Johnson, showing 60,000,000 feet of gas and drilling with hole full of water at 2,825 feet; Plain Oil Co.'s No. 1 Weatherly, 1,000 feet of fluid in hole and will pump and test at 3,090 feet; Producers & Refiners Oil Co.'s No. 2-B Burnett, drilling at 315 feet; Prairie Oil & Gas Co.'s No. 1 Deahl, running 8¼-inch casing at 2,966 feet; Twin Six Oil Co.'s No. 1 Kingsland, 15½-inch casing collapsed at 240 feet; Tex-O-Oil Co.'s No. 1 Johnson, showing 7,000,000 feet of gas and will complete at 1,165 feet; Wilson and others' No. 1 Whitenburg, showing 40,000,000 feet of gas and trying to shut it off, to drill deeper at 2,777 feet.

Carson County—Drilling: American Refining Co.'s No. 1 Burnett, rigging to pump at 2,600 feet; No. 3 Burnett, spudding at 150 feet. Gates Oil Co.'s No. 1 Burnett, underreaming casing in broken lime at 1,810 feet; Olsen and others' No. 1 Burnett, drilling at 1,200 feet; Silk and others' No. 3 Burnett, drilling by junk at 2,906 feet; Skelly Oil Co.'s No. 1 Burnett, showing 200 to 400 bbls. of oil daily and drilling in a granite wash; The Texas Co.'s No. 2 Mary Burnett, showing 5,000,000 feet of gas and fishing for casing at 2,540 feet; The Texas Co.'s No. 4 Mary Burnett, drilling in broken lime at 2,710 feet.

Gray County—Drilling: The Texas Co.'s No. 1 Saunders, showing 53,000,000 feet of gas and running 6¼-inch casing at 2,780 feet; Wilcox and others' No. 1 Wilson, drill pipe stuck at 2,550 feet.

Wheeler County—Drilling: Schenck and others' No. 1 George, fishing for tools at 2,675 feet; Whittington and others' No. 1 Williams, showing 125,000,000 feet of gas and will complete at 2,225 feet; Woodley and others' No. 1 Barnes, drilling at 1,970 feet.

Knox County—Drilling: Evans and others' No. 1 Lawson, drilling in soft rock at 750 feet.

Clay County—Drilling: Callender and others' No. 1 Stine, swabbing salt water at 1,780 feet; Bowen and others' No. 1 Stine, coring oil sand at 1,875 feet; Hart and others' No. 1 Stine, swabbed dry and will core deeper at 1,796 feet. Atlantic Oil Co.'s No. 1 Scaling, drilling in hard rock at 2,880 feet; Knox-Finley Development Co.'s No. 1 Howell, drilling sandy lime at 1,230 feet; Lone Star Gas Co.'s No. 10 Panhandle, drilling out plug at 1,587 feet; No. 11 Panhandle, cementing 8¼-inch casing at 1,623 feet; No. 20 Martin, cementing 8¼-inch casing at 1,615 feet; Shelton and others' No. 1 Boddy, pumping 15 bbls. of oil a day and drilling at 1,070 feet; Sullivan and others'

(Continued on Page 106)

East Central Texas

By Staff Correspondent

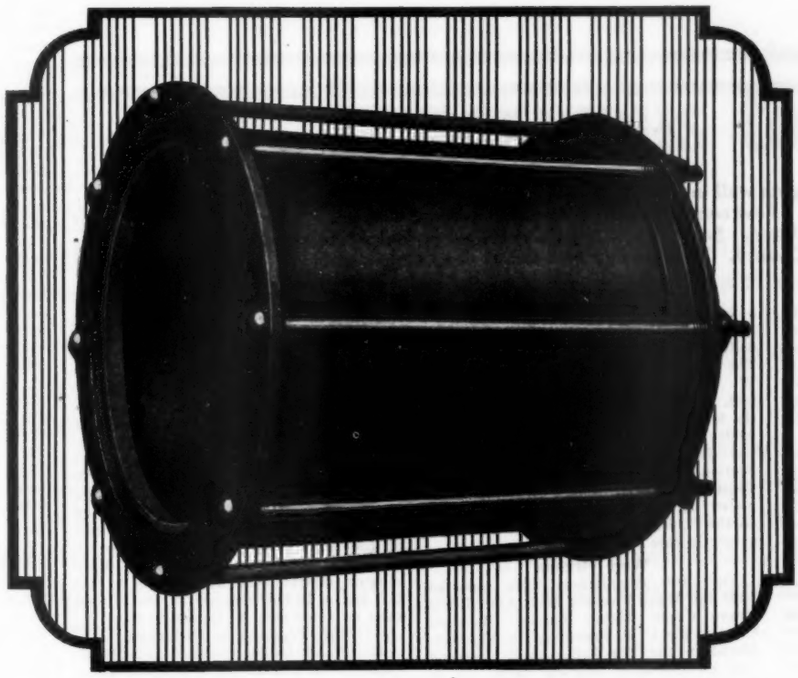
CORSICANA, Tex., Sept. 6.—Outside of several good wells in the Richland Field in Navarro County the East Texas area had little of interest to show in the past week in review. The production of the Powell Field averaged 78,265 bbls a day for the week ending Tuesday from 733 wells; Mexia, 27,940 bbls. a day from 510 wells; Currie, 2,450 bbls. from 68 wells; Richland, 23,910 bbls. from 64 wells. Wells in the last named field averaged 389 bbls. a day per well.

In Limestone County the test of Trout and others on the Roach farm, Ford survey, was abandoned as dry at 3,504 feet.

In the Powell Field, Navarro County, Witherspoon and others' No. 1 G. Springfield, Love survey, was abandoned at 3,180 feet. Salt water was encountered at that depth with no showing of oil. The Simms Oil Co.'s No. 4 Howell, Mathews survey, was a 35-bbl. well at 954 to 1,063 feet.

The U. S. Tex Oil Corp. & Demott's' No. 1 Ramey, Smith survey, a shallow test, has been spudded in. The Andrews Petroleum Co.'s No. 2 Williamson, which tested dry at 1,665 feet, will be deepened. The Texas & Brazos Valley Railroad Co.'s No. 1 Harvard, Mathews survey, was drilling below 750 feet. Neeney & Smith's No. 1 Goldman 50 acres, shut down at 1,471 feet, showed nothing in the shallower horizons and will be deepened.

In the Richland district the Gulf Production Co.'s No. 2 Elkin, Choate survey, got the top of the sand at 2,597 feet, total depth 2,996 feet, and the well made 450 bbls. the first day. It was run to storage. Rowan and others' No. 2 Davis, John Choate survey, made 250 bbls. of oil and the same amount of water from sand at 2,930-75 feet. The Sun Oil Co.'s No. 1 Brown, John Choate survey, was shut down at 2,979 feet with salt water showing from sand topped at 2,944 feet. No. 13 Brown, of the same company, on the White survey, swabbed 600 bbls. the first day at 2,891-2,948 feet. No. 8 is near completion and No. 4 was drilling below 1,500 feet. The Simms Oil Co.'s No. 2 Allison, John White survey, pumped 20 bbls. of oil and 100 bbls. of water from sand at 2,935-87 feet. Tucker and others' No. 3 Davis, John White survey, was good for 250 bbls. at 2,932-80 feet. Tucker & Fox's No. 3 Davis, White survey, started at 1,500 bbls. at 2,924-57 feet, and their No. 6 R. R. Davis, White upper survey, made 1,400 bbls. initial production at 2,925-75 feet. The Atlantic Oil Producing Co. has derrick up for No. 5 B. L. Swink, Choate survey. No. 3 Swink was drilling below 2,400 feet and No. 5 was ready to swab with sand at 2,925 feet, total depth of the hole 2,971 feet. The Gulf Production Co.'s No. 1 Elkin, Choate survey, got salt water at 2,996 feet and was drilling at 3,005 feet. Gutman & Appleman were drilling below 300 feet in No. 3 H. A. Swink, White survey. The Oxford Oil Co. was cleaning out with a hole full of oil at 3,000 feet in No. 4-B Davis, Choate survey, while No. 3-B Davis was drilling at 2,950 feet. Peyton and others' No. 2 Davis, Choate survey, was being cleaned out preparatory to setting a liner. It has sand at 2,915-50 feet and pumped 150 bbls. in 24 hours in a test. Tucker and others are drilling below 300 feet in No. 3 Davis, John White survey. Lenoir & Schnaufer have commenced drilling No. 1 Edgar, Meazell survey.



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THE DAYTON PIPE COUPLING CO.

DAYTON, OHIO

Pennsylvania-West Virginia

By D. S. Wakenight

Chartiers Oil Co. gets well in Coal Township, Perry County, Ohio, which made 230 bbls. first day. Few completions reported from West Virginia. More gas wells being completed. South Penn Oil Co. gets what looks like good producer in Greene County. Trouble experienced at deep test.

PITTSBURGH, Pa., Sept. 8.—The Eastern Fields show no improvement as development work progresses. The oil wells completed are usually light pumpers and located for the most part in old territory. The only exception during the past week was the Chartiers Oil Co.'s No. 190 on the Hocking Valley Products Co.'s property in Section 32, Coal Township, Perry County, Ohio. The first 24 hours after this well was drilled through and shot in the Clinton sand it produced 230 bbls., giving it the distinction of being the largest deep sand well completed since the first of the year. The location is 700 feet west of the same company's No. 108 on the same company's property. In Section 12, Ward Township, Hocking County, the Sunday Creek Coal Co. got a 30-bbl. producer when it drilled No. 118 on its own property through the Clinton sand.

From the completion of the two good wells, there was a drop back to light pumpers. In Section 4, Green Township, Hancock County, the Chartiers Oil Co. got a light pumper in the Berea grit at a second test on the Robert Watters farm. In Section 8, Hopewell Township, Perry County, the Midland Oil Co.'s test on the George Trout farm, is a fair gasser in the Berea grit, but will be drilled to the Clinton sand. In the northeast quarter of Section 26, Rush Creek Township, Fairfield County, the Blume Oil & Gas Co.'s second test on the John McCandlish farm is a 10-bbl. pumper in the Clinton sand. In Section 16, Madison Township, Licking County, Spindler & Donaldson have a light pumper at No. 7 on the C. A. Bounds farm. Martin & Croup have drilled No. 8 on the E. R. Keiser farm in Clarke Township, Coshocton County, through the Berea grit and have a showing for 2 or 3 bbls. a day.

In Section 16, Muskingum Township, Washington County, J. T. Dillon has a duster in the Macksburg 500-foot sand at No. 8 on the Henry Decker farm. In Jackson Township, Noble County, Beeson & Athey have a duster in the same formation at a test on the Mrs. Hagan farm. In Section 2, Lawrence Township, Washington County, J. T. Campbell has an 8-bbl. pumper in the Berea grit at a test on the Blazer heirs' farm. In Liberty Township, Beeson & Bailey have started to drill on the James R. Heslop farm. In Newport Township, Mrs. Sadie L. Closson has started to drill a second test on the Katherine Berg farm. In Section 13, Bowling Green Township, Licking County, the Glenn Oil Co. has started to drill a second test on the George M. Bowers farm.

Located in the northwest quarter of Section 14, Jackson Township, Perry County, Edgar Denman & Co. have completed and shot in the Clinton sand No. 5 on the Martin Burns heirs' farm. It is located 800 feet west of No. 4 and showing for a 15-bbl. pumper. In Hardy Township, Holmes County, located 2 miles southwest of Millersburg, the Central Ohio Gas Co. has drilled through the Clinton sand at a test on the William Watts farm. It is a duster and has been abandoned.

Guernsey County Operations

In Knox Township, Guernsey County, the Ohio Fuel Supply Co. has completed a test on the J. C. Rankin farm. It is a gasser good for 1,000,000 feet a day. In the same township, Keith Brothers are drilling at 2,700 feet on their own farm. The Ohio Fuel Supply Co.'s test on the W. M. Worthing farm is drilling at 600 feet. The same company is drilling in the top of the sand at a test on the J. H. Addey farm and has started to drill a test on the William Abbott farm. In Section 2, Franklin Township, Licking County, Ralph Brothers, Inc., has completed in the Berea grit a second test on the C. E. Bricker farm. It is a light gasser in this formation.

West Virginia

Very few completions were reported from the West Virginia fields. On Little Grave Creek, Union district, Marshall County, the U. S. Stamping Co. has completed in the Big Injun sand a second test on the John Markey farm. It is good for 10 bbls. a day. On the same stream and in the same district, George P. Wasmuth & Co. have a dry hole at a test on the John Otte & Sons' farm.

On Triplett Run, Spencer district, Roane County, the Carter Oil Co. has completed through the Big Injun sand a test on the J. W. McDade farm. It is a gasser good for 1,000,000 feet. Some oil was developed in the Big Injun, but for the present the well will be operated as a gasser. On States Fork, Mannington district, Marion County, the Hope Construction & Refining Co. drilled its old No. 1 on the John L. Hays farm from the 50-foot sand to the 30 foot sand and has a showing for a 5-bbl. pumper in the lower sand.

Complete Many Gassers

The lower West Virginia counties are completing more gassers than any other section of West Virginia. In Union district, Lincoln County, the Cambridge Gas & Carbon Co. has a gasser in the Big Injun sand at a test on the J. W. Pack farm. In the same district, Roy & McComas have a gasser in the same formation on the Webb Adkins farm. On Charley's Creek, Grant district, Cabell County, the Aetna Oil & Gas Co. has a gasser in the Berea grit at No. 4 on the S. A. Wallace farm. On Mud River, located in the same district, the Monical Gas Co. has a fair gasser in the same formation at a test on the Lemuel Rucker farm. On Fudges Creek, the Aetna Oil & Gas Co. is drilling a test on the Fred Carter farm. On Indian Fork, the Walton Oil & Gas Co. has a rig up on the W. O. Walton farm.

In Union district, Ritchie County, the Pittsburgh & West Virginia Gas Co.'s test on the Lewis Garrison farm is a gasser in the Big Injun sand. In Grant district, Mellon Brothers have a 5-bbl. pumper in the salt sand at No. 6 on the A. J. Noll farm. In Union district, D. M. Heckert & Co. completed a Big Injun sand gasser on the J. F. Sommerfield farm. In Grant district, Pleasants County, C. D. Sloan completed a 5-bbl. pumper in the first Cow Run sand at a second test on the B. R. Westbrook farm. In DeKalb district, Gilmer County, the Hope Natural Gas Co.'s test on the W. Miller farm is a gasser in the Big Injun sand. In the same district, the same company's test on the G. C. Fisher farm is a light pumper in the Big Injun sand. In Center district, the same company's test on the Bennett-Boggs farm is a duster. In Sherman district, Calhoun County, the Hope Natural Gas Co. has a 15-bbl. pumper in the salt sand at a test on the P. A. Bourne farm. In Williams district, Wood County, Daniel Kelley has a duster at his No. 14 on the E. A. Kennedy farm. Five miles east of Big Flint Pump Station, McClelland district, Doddridge County, the Carter Oil Co.'s test on the H. J. Ash farm is a 5-bbl. pumper in the Big Injun sand. On Pharohs Run, Paw Paw district, Marion County, the Victor Oil Co.'s second test on the Isaac Coogle farm is a gasser in the Gantz sand. On States Fork, Mannington district, the Maxon Oil & Gas Co. has a 10-bbl. pumper in the 30-foot sand on the Jacob R. Baker farm.

Fair Producer in Doddridge

In West Union district, Doddridge County, the Clifton Oil & Gas Co. got a 30-bbl. producer in the Big Injun sand when it drilled in No. 9 on the Joseph Freeman farm. It is located in a section in which the Philadelphia Oil Co. has been completing good wells on the Thomas J. Smith farm, and is estimated to be good for 30 bbls. a day. On Sullivan Fork, Ten-Mile district, Harrison County, Marsh & Woodall have a light gasser in the fifth sand at a test on the T. W. Keesy farm. In Courthouse district, Lewis County, Carl Wohinc & Co. drilled a test on the J. P. Cole farm through the Gordon sand. The hole filled up 400 feet with fluid and it is showing for a 10- or 15-bbl. pumper. In Jefferson district, Pleasants County, the Creek Oil Co.'s No. 3 on the Ogdin-Ross farm, is a light pumper in the salt sand. In Grant district, Frank Shrier had the same kind of luck when he drilled No. 7 on the Hammett heirs' farm through the second salt sand. On States Fork, Mannington district, Marion County, the Maxton Oil & Gas Co. has a 10-bbl. pumper in the 30-foot sand at No. 4 on the Jacob R. Baker farm.

Bayard Sand Gasser

In Clay district, Monongalia County, the Randall Gas Co. has a fair gasser in the Bayard sand at a test on the Noah Wright farm. In Mead district, Tyler County, the Premier Oil Co.'s test on the William Birch farm is through the second Cow Run sand and dry. This location is 1,100 feet southwest of production. In Murphy district, Ritchie County, Smith & McCullen have a gasser in the Big Injun sand at a test on the A. F. Prather farm. On Indian Creek, in the same district, the Cairo Oil Co. got a very light pumper in the Big Injun sand when it completed No. 8 on the B. F. Prince farm. The West Virginia Central Gas Co. has a gasser in the Big Injun sand on the George C. Gerwig farm in Otter district, Braxton County. In Simpson district, Harrison County, the Bridgeport Oil & Gas Co. has a Big Injun sand gasser at No. 3 on the S. S. Farris farm. In Walton district, Roane County, the Ohio Fuel Oil Co. completed a Big Injun sand gasser on the William Sergent farm. The Victor Oil Co. has a gasser in the Gantz sand at a second test on the Isaac Coogle farm. In Grant district, Wetzel County, the Carnegie Gas Co.'s No. 23, on the Genine Robinson farm, is a duster in the fifth sand.

Less New Work Starting

At the beginning of the month there is less new work starting than at the close of July. This can be accounted for by the low market. This is the time of year when operators like to be busy, but there is nothing of the kind in evidence at this time. In Greene district, Wetzel County, the Silver Hill Oil Co. is due in the Gordon sand at a test on the Anna Steele farm. In Center district, the Carnegie Natural Gas Co. is drilling on the Pendleton Nutter farm. In Liberty district, Marshall County, the Manufacturers Light & Heat Co. is rigging up on the Frank L. Mackey farm. The Waynesburg Gas Co. is rigging up on the Alfred McCluskey farm. J. E. Travis has started to drill a test on the F. P. Barbridge farm in New Milton district, Doddridge County. In Union district, Harrison County, the Reserve Gas Co. is building the rig for its proposed deep test on the Chapman G. Smith farm. Barring accidents this well will be drilled deeper than any other, unless oil or gas is found in some of the upper sands. In Simpson district, the Grasselli Chemical Co. is drilling another test on the M. R. Lodge farm. In Clay district, Ritchie County, the Hope Natural Gas Co. is rigging up on the J. M. Wilson, W. T. Frederick and W. M. West farms. Vincent & Co. are rigging up on the B. Cox farm. In Union district, Cliff Loudin is rigging up on the J. O. Nay farm.

Lower County Tests

In Curry district, Putnam County, the Star Gas Co. has a rig up on the H. C. Osborne farm. In Union district, Lincoln County, the Superior Gas Co. is drilling on the Travis Adkins farm. The Columbia Gas & Electric Co. is rigging up on the Wilbur Adkins farm. In Curry district, Putnam County, the Commercial Gas Co. and the Sovereign Gas Co. are rigging up on the James Bays and John Beckett farms. On Cains Run, Reedy district, Roane County, the Heck Oil Co. has the rig completed for a second test on the S. D. Sheppard farm. In Center district, Calhoun County, the Hope Natural Gas Co. has started to drill on the Alice B. Bennett farm. W. H. Bickle is rigging up on the Alpheus Holbert farm. In Sherman district, the Carter Oil Co. has started to drill on the L. S. Force farm. In Collins Settlement district, Lewis County, the Hope Natural Gas Co. is rigging up on the Prudence Chara farm.

Ritchie County

On McFarlan Creek, Murphy district, Ritchie County, the South Penn Oil Co. has a rig up on the E. Bickerstaff farm. On Indian Run, Grove & Parrish are spudding on the A. W. Smith farm. In Grant district, J. F. Rector & Brother have a rig completed on the G. L. Rector farm. On Grass Run, the Hope Natural Gas Co. has a rig up on the M. R. Osborne farm. In Walker district, Wood County, Rexroad & Rogers have started to drill on the William Vincent farm. In Sheridan district, Calhoun County, Godfrey L. Cabot has a rig up on the A. Rothwell farm.

Southwest Pennsylvania

Located in Springhill Township, Greene County, Patterson & Covert's test on the P. D. Hoskinson farm is a gasser in the Gordon sand. In Perry Township, the Peoples Natural Gas Co. has a gasser in the salt sand at a test on the E. & R. Headley farm. In the same township, the Philadelphia Oil Co. has a Big Injun sand gasser on the David Ammons farm. In Richill Township, the Manufacturers Light & Heat Co.'s test on the William Boler farm is a gasser in the same formation. In Gilmore Township, the Peoples Natural Gas Co. has a duster in all sands at a test on the Melvin Mitchell farm. In Springhill Township, the Philadelphia Gas Co. had the same kind of luck at a test on the William Warrick farm.

After a long run of gassers and dry holes, the southwest Pennsylvania fields have succeeded in getting what looks to be a good producer. It is the South Penn Oil Co.'s test on the Ernest Bradley farm, located on Shannon's Run, Perry Township, Greene County. When 2 feet in the pay the well began to fill up and has 800 feet of fluid in the hole.

(Continued on Page 94)

CAMEL HAIR BELTING

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One of the many advantages of "Camel Hair" Belt is the fact that crude or mineral oil does not affect it adversely.

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The Ideal Twin Drilling Engine—
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To give field operators an engine that will stand the strain of deeper and faster drilling with rotary equipment, Ajax engineers have developed and perfected the Ideal Twin Drilling Engine.

It is made with the same care and accuracy that has made the single Ajax Engine famous.

Inspect this new Ideal Twin Engine at any of the branches of the National Supply Companies. The genuine Ideal Engine and parts for it bear the registered Ajax name, a guarantee of quality.

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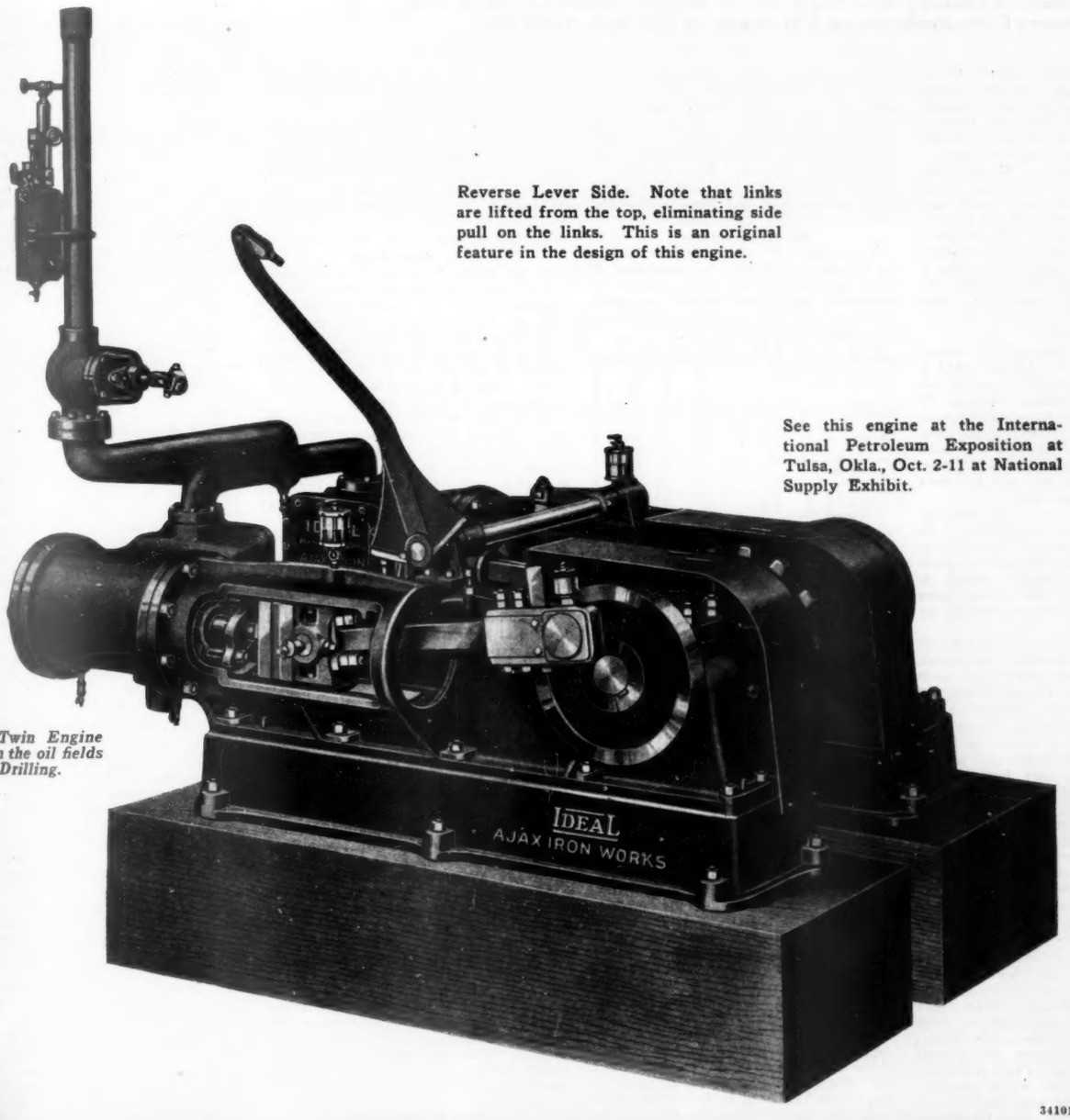

The First Twin Engine to be used in the oil fields for Rotary Drilling.

Reverse Lever Side. Note that links are lifted from the top, eliminating side pull on the links. This is an original feature in the design of this engine.

See this engine at the International Petroleum Exposition at Tulsa, Okla., Oct. 2-11 at National Supply Exhibit.

34101

DRILLING ENGINES

Ajax Replacement Parts

Kentucky—Tennessee

By Vern T. Whitney

Dyer Oil & Gas Co. finds well that looks good for 500 bbls. in Gibson County, Tennessee, opening new territory. Petroleum Exploration Co. gets 50-bbl. producer in Idamay; Union Gas & Oil Co., 40 and 30-bbl. wells in North Weir; Burning Forks Syndicate and J. H. Arnett, 30 bbls. each, South Weir.

LEXINGTON, Ky., Sept. 6.—Is Tennessee on the verge of having another excitement like the drilling of the famous Bob's Bar well, in Fentress County, many years ago, long before Kentucky was known as a commercial oil field?

It looks very much as though there was something on tap that may bring about the opening of an entirely new producing region in northwestern Tennessee. The Old Bob's Bar well showed a production of 520 bbls. actual measurement for its fourth day's output, and a month later was still flowing 100 bbls. a day from a shallow sand at a depth of 277 feet, which produced 50,000 bbls. before it ceased flowing.

The well that is causing new excitement is being drilled by the Dyer Oil & Gas Co., near the town of Dyer, in the central portion of Gibson County, 80 miles northeast of Memphis and approximately 25 miles due north of Jackson. Reliable reports state that this test looks good for 500 bbls. at around 1,400 feet. Casing is now being set and the next few days will tell the story.

If this well lives up to its showing, Tennessee will realize its ambition to be a real oil producing State. Already producers from all over the country have their scouts on the ground leasing up all available acreage, and in some cases taking options on nearby acreage at fancy figures.

In the Mississippi Embayment area, in which this well is supposed to be located, good geological reports have been made by Stewart St. Clair, Russell Ryan, and several other prominent geologists.

To the south of Gibson County, in which this new well is located, is Madison County, where a recent test on the Jodie Howard farm, near Jackson, had a showing at around 1,250 feet, and on drilling to 1,272 feet, was abandoned for some unknown reason. The rig, which was a rotary, was moved 15 feet away and a new hole started, which found a good showing in a shallow sand, but is being drilled for a deeper pay. On the Merchison farm, the Jackson-Tennessee Syndicate's No. 1 is shut down on account of the lack of funds.

In Carroll County, east of Gibson County, two rotary tests will be made in the vicinity of Huntington by Pittsburgh parties. In Benton County, east of Carroll, in the Western Highland Rim and just west of the Tennessee River, in the Big Sandy district, the Benton Oil Co. is shut down in its test near Eva, at a depth of 800 feet, while unknown parties have a rig up near Camden.

In Shelby, Fayette and Hardeman counties, some testing will be done in the near future. The first test made in Shelby County was abandoned at around 2,200 feet with a showing. It was drilled by the Arlington Oil & Gas Co., on the Garrett farm, near Arlington. No. 2 test is shut down at 1,900 feet. In Hardeman County, near Bolivar, the Spring Valley Oil & Gas Co.'s No. 1 Brown Sane, was shut down at 1,500 feet. At Lacona, near Somerville, in Fayette County, Strickland and others have a combination rig erected on the Joe Perry farm. This location was made by Stuart St. Clair, and, according to first hand information, will be started in the immediate future.

Development work throughout Kentucky shows no improvement compared with previous week. There were, however, 18 wells started, 5 in Barren; 4 in the Owensboro district and 3 in Cumberland County, in the western division. In the eastern division, Lee County is credited with 4 new holes started, while Lawrence-Johnson, and Johnson-Magoffin are credited with but 1 each.

Week's Summary

A summary of the week's work shows an increase of 65 bbls. in production, 2 more completions, the same number of producers, and 2 more dusters, compared with last week. The wells were distributed by counties as follows:

County—	Prod. Comp.	Wells	Prod.	Dry
Lawrence-Johnson	8	8	130	0
Johnson-Magoffin	5	5	72	0
Lee	3	3	80	0
Wayne	2	2	9	0
Elliott	1	1	12	0
Allen	6	4	25	2
Barren	5	5	63	0
Warren	3	3	27	0
Owensboro district	3	2	20	1
Cumberland	2	2	37	0
Simpson	2	2	6	0
Total	40	37	481	3
Previous week	38	37	416	1
Difference	2	0	65	2

Eastern Kentucky

The eastern division of Kentucky again came through with a 100 per cent week, as out of 19 completions, none was dry. The best well of the week was that of the Petroleum Exploration Co., in its No. 10 George Botner, which started off at 50 bbls. This well is in the Idamay district, along the Lee-Owsley County line, in District 35. In this same district, Hupp, Duff and others finished a 25-bbl. started in No. 3 on the Adeline Porter farm. The Carter Oil Co.'s No. 2 John Mays, in District 35, is a 5-bbl. pumper.

Builds Loading Rack

With the completion of the new river dock at Revenna, the Petroleum Purchasing Co., which recently purchased the gathering system of the Indian Pipe Line Corp., is prepared to ship oil either by rail or by way of the Kentucky River. Under the supervision of the superintendent, C. S. Shriver, a river loading station was built and two 4-inch lines laid approximately 1 mile from No. 1 pump station to the north of Cow Creek on the Kentucky River.

The oil barges are of all steel construction with a capacity of nearly 5 000 bbls. They are owned by the Inland Waterways Co., and are towed by steam boats of the stern wheel type. The steamboat tows five barges at one trip, going down the Kentucky River to Carrolton, Kentucky, and thence down the Ohio to the refinery at Louisville. It takes about 15 days to complete the round trip.

North Weir Field

Eight completions for the week, all producers, increasing the production of the North Weir Field of Lawrence-Johnson counties 130 bbls. per day, shows a steady advancement of oil production in this territory.

In District 22, the Union Gas & Oil Co., finished its No. 6 Proctor Lyon, and No. 28 Proctor Sparks, at 10 and 40 bbls., respectively. In the same district, the Indian-Tex Petroleum Co. got a 20-bbl. starter in its No. 7 on the W. L. Gilliam 50 acres, and a well of the same caliber in No. 9 G. Gilliam No. 2 farm, in District 22 A. On the R. M. Sparks lease No. 21 of the Boston & Southwestern Oil Co. was reported at 5 bbls.

The Union Gas & Oil Co. completed its No. 17 Andrew Skaggs, District 32, for 30 bbls. flush in the regular pay. In District No. 26, the Mid South Oil Co.'s No. 1 Carey Fannin made 1 bbl. on test. In District No. 33, Wheeler & Brown's No. 1, on the school house lot made 4 bbls. after a shot in the Weir sand.

South Weir Field

In the South Weir Field of Johnson and Magoffin counties, the Burning Fork Syndicate's No. 7 J. T. Patrick, in District No. 31, started off making 30 bbls. at approximately 1,100 feet. In the same district, J. H. Arnett got a 30-bbl. completion in his No. 10 J. H. Arnett 60 acres. Adams & Jenkins finished a 5-bbl. pumper on the H. R. Adams.

In District No. 29, J. B. McKenna's No. 1 Patton Borders made 2 bbls. on jack; the Structure Oil Co.'s No. 9 on the M. Blanton 40 acres was reported good for a 5-bbl. pumper in District No. 27.

Wayne County

In the old Wayne County Field, Bell & Griswell's No. 1 Eph Hurt tested 2 bbls. Barr & Griffith's No. 5 on the G. W. Sanders tract made 7 bbls. when put on the pump.

In Elliott County, the Sandy River Oil Co.'s No. 3 Ves Peters, in District No. 34, is reported at 12 bbls. The same company's No. 4 was on top of the sand with a light showing. This is a new producing area for northeastern Kentucky and a lot of new work is looked for in that district when the market price permits.

Runs and shipments of the Cumberland Pipe Line Co., Inc., from the Eastern Kentucky Field for the week ending August 30, amounted to 74,062.77 bbls., a daily average of 12,343.80 bbls. Compared with the previous week a loss of 5,287.81 bbls. is shown.

Western Kentucky

In the Western Kentucky Field as soon as wells are completed in any of the producing counties with the possible exception of Barren, operators and drilling contractors are hanging away their tools. The low price is keenly felt in Warren, Allen and Simpson counties, where it is selling for as low as $1.20 per barrel. In the Cumberland-Monroe district and in Barren County producers are realizing $1.90 per barrel and in some cases, in Barren, a premium is added, which helps to stimulate the activities there.

Allen County Wells

Four producers and two dusters is the record of the week in the Allen County shallow field. In the Gainesville district, north of Scottsville, W. R. Speck's No. 4 Frank Martin made 10 bbls. after a light shot at 420 feet; O. C. Fletcher's No. 5 on the J. Johnson tested 3 bbls. after a shot at 300 feet; the Flopokas Oil Co.'s No. 8 C. C. Stovall was finally completed for 8 bbls. at 300 feet. This well was held up for some time on account of a crooked hole and it was thought at first it would have to be abandoned.

In the district to the southwest of Scottsville, H. B. Bastrus got a 4-bbl. completion in his No. 2 on the W. C. Carber farm, adjoining the famous Wheat tract at Trammel Creek. This same operator finished No. 2 on the Albert Lyles for a duster at 280 feet.

The Pelican Oil Co. got a dry hole in its No. 4, a workover at 500 feet.

Barren County Activity

Barren County leads in activity in western Kentucky which is quite a thrill for the populace of Glasgow, the county seat. The real activity started about one and one-half years ago with the bringing in of several good producers 3 miles to the west of Glasgow, now called the Emery-Moore Pool, in honor of Lewis J. Emery, Jr., of Bradford, Pa., and Fred Moore of Bowling Green, Ohio, the first to explore the new district.

The feature well for the week in Barren County is the Star Oil Co.'s No. 9 Ritchie, in the Emery-Moore Pool, which pumped off at 20 bbls. the second day. When first put on the jack it filled 900 feet of 2-inch and 500 feet of 1½-inch lead line, and put 17 inches of oil into a 100-bbl. tank which was filled before the well pumped off. It was finished at a depth of 548 feet in the usual pay, 185 feet below the shale. This concern finished its No. 7, on the same tract, at 540 feet. The first pumping, the well tested 16 bbls. The Star Oil Co., which is one of the most active concerns in Barren County, has shut down its four strings of tools to await better conditions.

The Carter Oil Co.'s No. 8 Winiger, in the Emery-Moore district, was completed at 532 feet for 17 bbls. No. 9 Winiger is drilling in the shale and No. 10 is spudding. On the I. N. Mansfield tract, the Houchins Leasehold Co.'s No. 6 started off at 7 bbls. after a 30-quart shot.

The JCS Oil Corp., of which Colonel J. C. Sibley is president, scored a small pumper in its No. 1 on the L. M. Jackman at a total depth of 563 feet. This test is quite important as it extends the production from the west pool quite a distance to the northeast. Shale was from 275 to 332 feet. First sand was from 477-487 and the second from 547-554 feet. The JCS Corp. has been quite active the past six months and is planning an extensive campaign. A wildcat being drilled by this same concern on the W. F. Butram farm, 3½ miles northwest of Smith's Grove, in Edmonson County is reported nearing completion. If it proves a producer it will open a wide area between the Rocky Hill Pool and production at Smith's Grove.

Cumberland County News

W. S. Raydure's No. 1 Mrs. Coop, in the Sulphur Creek district, when drilled 6 inches deeper to a total depth of 730 feet started flowing at the rate of 100 bbls. an hour for three hours and the next morning was continuing at the rate of 15 bbls. per hour. As soon as the well quiets down it will be drilled deeper into the pay sand. This completion was originally finished at 729½ feet where it made 320 bbls. naturally.

Carter & Combest's No. 1 Huddleston-Payne, 2 miles up Sulphur Creek from the famous Huddleton lease, of the Combest Oil Co., has settled to 60 bbls. per day. Nos. 2 and 3 were spudding. No. 2 is being drilled to offset the big well on the Mrs. Coop, noted above.

At Fanny's' Creek, the Oil Fork Development Co. finished a 30-bbl. starter in its No. 1 M. C. Scott at 331 feet. Sand found from 202 to 208 feet was treated to a 10-quart shot. The hole was cased with 44 feet of 8¼-inch casing and 165 feet of 6½-inch casing. The Scott lease adjoins the same company's Tompkins farm to the north. A new hole is being started, by the same company, on the Doll Boles farm, adjoining the Tompkins to the south.

Drilling Activities

At Kettle Creek, the Young Oil Co. is spudding in No. 3 on the R. L. Coffee tract. No. 2 is being finished in the first Sunnybrook sand and should be amongst next week's completions. No. 1, on the same farm, which made 600 bbls. naturally is reported to be pumping 40 bbls. at the end of 30 days.

The McClintock Oil Co.'s No. 7 Millard

(Continued on Page 94)

Twenty Trains

OF

Natural Gasoline

moved from our fourteen plants during the month of August.

Over One Thousand Cars of Natural Gasoline

was our record breaking shipment for that month.
Our enlarged facilities enabled us to dispatch this enormous volume with promptness, the railroad giving the trains passenger schedules.

NATURAL GASOLINE GRADES MANUFACTURED BY CHESTNUT & SMITH CORP.

GRADE "A"

Gravity	Not below 72° Be.
	Not above 78° Be.
E. P.	Not over 375° F.
Recovery	Not less than 90%

GRADE "B"

Gravity	Not below 76° Be.
	Not above 82° Be.
E. P.	Not over 375° F.
Recovery	Not less than 85%

GRADE "C"

Gravity	Not below 80° Be.
	Not above 88° Be.
E. P.	Not over 350° F.
Recovery	Not less than 78%

GRADE "D"

Gravity	Not below 88° Be.
	Not above 92° Be.
E. P.	Not above 350° F.

CHESTNUT & SMITH CORPORATION

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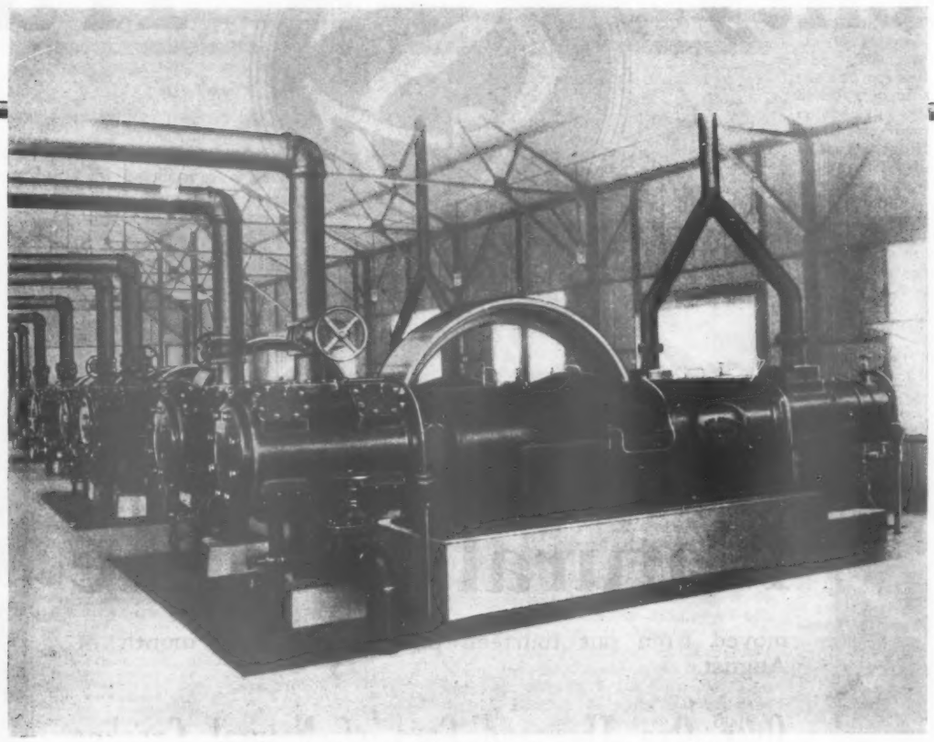
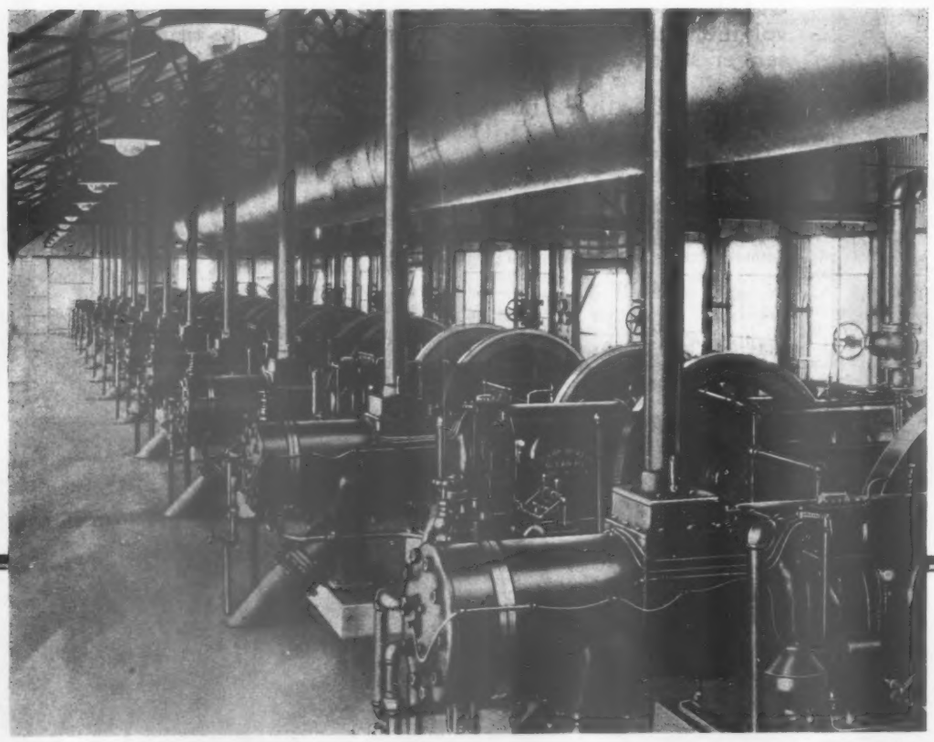


Comar Gasoline Co. Plant No. One, Tonkawa Field



Comar Gasoline Co. Plant No. Two, Tonkawa Field

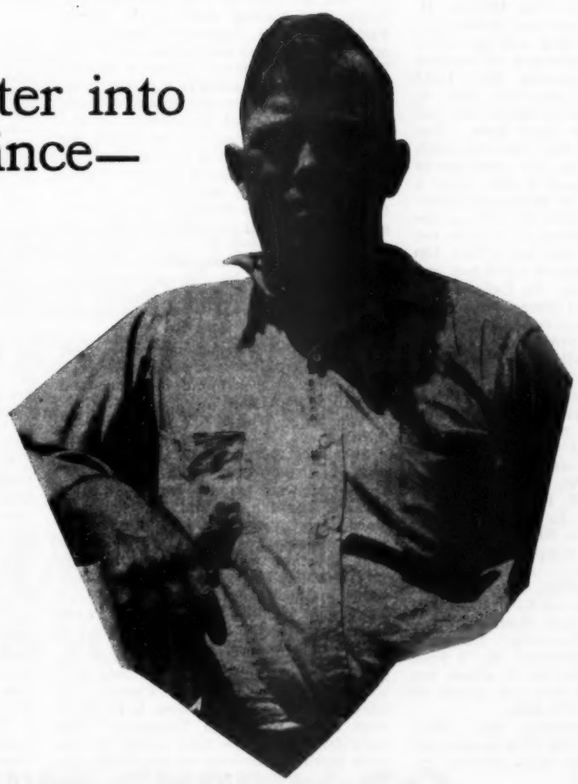
13

-May be an unluckey number, but not when *CLARKS* are used-

LUCK doesn't enter into CLARK performance—

"Thirteen may be an unlucky number but not when CLARKS are used," says S. W. Craig, the General Superintendent of the Comar Gasoline Company, Tonkawa Field, Oklahoma.

This company escapes the hoodoo for they have not only 13 CLARK 80's in their Number Two plant, but also have five 80's and two 165's in their Number One plant —a total of twenty compressors, all operating A-1 and giving the very best of satisfaction.



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Fields of the Central West

By Whit

W. E. Donnelly's No. 3 Hodgman, Liberty Township, Wood County, Ohio, makes 60 bbls. flush. Porter & Hovis get 50 bb'ls. flush producer in Hancock County. Payne Field, Paulding County, widening and prospects in Melrose Field. Edmondson Oil Co.'s second completion in Allendale Field, 50 bbls.

FINDLAY, Ohio, Sept. 6.—There does not appear to be much of a letup in development work over the Central Ohio, Lima, Indiana and Illinois Fields of the Central West, although things are not active in any portion of Indiana, while the Wabash County Field of Illinois is at its peak just at this time. Numerous new locations for wells are being staked out for future development and with a slight increase in the price of crude will bring about additional work in all fields.

Lima Field

Eleven completions were reported for the week from the old Lima Field of Northwestern Ohio. The best well was found by W. E. Donnelly in his No. 3 on the southwest corner of the S. F. Hodgman farm, in the southwest quarter of Section 4, Liberty Township, Wood County, and mapped as the William H. Levans farm. This well was drilled to a total depth of 1.357 feet, and showed a flush of 60 bbls. Southwest of Bowling Green, in Plain Township, Bert Ladd drilled a test on the Joe Lane farm in the northwest quarter of Section 33, and mapped as the Mose Lane farm. The well is located 2.600 feet from the north line and 200 feet from the west line of the farm, and produced 8 bbls. from a depth of 1.379 feet. In Middleton Township, William M. Stitt's No. 11 on the A. J. Ovitt farm, Section 34, struck top of Trenton at 1.218 feet and drilled 100 feet in to a total depth of 1.318 feet, the well producing 5 bbls. In Lake Township, R. G. Bowie and others' second well on the Henry Bahnsen farm, Section 36, pumped 5 bbls. at 1.318 feet.

The second best well in the Lima Field was Porter & Hovis' No. 14 on the Lem Aurand farm, Section 5, Eagle Township, Hancock County, with a flush of 50 bbls. In Union Township, near Rawson, same county, the Ohio Oil Co.'s No. 2 J. A. Rogers, Section 32, pumped 18 bbls. and Fuller and others' No. 14 on the northwest corner of the H. P. Smith, Section 12, pumped 12 bbls. In Allen Township, the Ohio Oil Co.'s No. 30, on the Mahlon Decker, Section 24, pumped 8 bbls. from a depth of 1.535 feet.

In Amanda Township, Allen County, W. O. Huntley drilled an 8-bbl. flush well in No. 3 John Egts farm, Section 20.

In Woodville Township, Sandusky County, Mountler Brothers' No. 8 Fred L. Mountler farm, Section 6, struck top of Trenton at 1.248 feet and drilled 50 feet in, for a flush of 3 bbls.

In Jennings Township, Van Wert County, the Stanley Oil Co.'s second test on the W. C. Sheley farm, Section 28, pumped 20 bbls. flush.

In the Elmore Field, in Harris Township, Ottawa County, the Zorn-Hornung Oil Co.'s No. 8 on the northeast corner of the William V. Schott farm, Section 20, pumped 15 bbls. from a depth of 1.320 feet. This well is directly east from the big 1,050 bbls. gusher completed on the same farm a few months ago.

Paulding County

Up to the present an even dozen wells have been reported complete in the new Payne Field, in the western part of Paulding County. These well range in flush production from 5 to 100 bbls., and settle down rapidly. The oil is of the same grade as that produced in the McComb Field of Pleasants Township, Hancock County, 55 miles to the east of the Payne Field.

The Payne Field is widening out to a considerable extent since the completion of the initial producer in Benton Township, 1 mile west of Payne. Since then a commercial producer was drilled on the Lamb farm, north of Payne and close to 3 miles east and a little north of the Payne Pool, making the intervening territory look as though it would connect up. The latest completion was made by J. H. Harmon and others' on the Jacob Kin farm, Section 2, Benton Township, south of Payne. This well will make a commercial producer and adds at least 2 miles to the pool, being about that distance to the east and south of the William King farm, upon which the discovery well was drilled last winter. The Harmon well adds at least 2.000 acres of fairly good looking stuff to the Payne Field. Another important strike was made by McIntosh and others on the O. T. and M. Brady farm, Section 8, Benton Township, to the southwest of the pool. According to reports, the Brady well appears to be located practically on the crest of the anticline, having struck the top of the Trenton at a shallow depth of 1.374 feet, approximately 25 feet higher than any previous wells drilled in the field. The well is making a considerable amount of natural gas and spraying some oil.

To the credit of Lemunyon Brothers of Mendon, Ohio, is due the opening of the field, being the contractors who hit the first oil for the U. S. A. Oil Co. on the King farm.

The Payne Field may yet cover a big area as some miles away from the pool, years ago, oil was found in commercial quantities, but never taken care of. Back in the early days of the Trenton Rock development, a good looking well was drilled near the reservoir near Antwerp, some 8 miles north of Payne. Good showings of oil were found in wells drilled in Section 10, 13, 14 and 22, Harrison Township, between Payne and Antwerp, so the chances are good for extensions in that direction, while to the south along the Paulding-Van Wert County lines, numerous good looking tests were drilled years ago, but like those between Payne and Antwerp, they were forgotten.

Melrose Field

The Payne Field is not the only producing area of Paulding County, for about 20 miles east of Payne is the Melrose Field, in Brown Township. But very few tests have been drilled in the wide territory between the two fields and the prospects are favorable for a large portion of the county, especially the southern portion.

The Melrose or East Paulding Field is looking just as inviting as the Payne Field. The Petroleum Producing & Refining Co. has five producing wells on the Allen farm; two on the Patterson; two on the Frede farm. All these wells are producers and showed a flush when drilled in of from 25 to 150 bbls. of 36 gravity oil, a little higher grade than the Payne product. These wells in the Melrose Field are usually given shots of 100 quarts and approximately 600 feet of casing is used in the holes which can be completed and put on the beam for from $2,800 to $3,000.

In Section 30, Brown Township, the Robinson Oil Co.'s No. 1 on the Emanuel E. Johnson farm, started at 15 bbls. when first drilled in and has been making that much daily for 45 days from the Trenton Rock at a depth of 1,420 feet. No. 1 Freedy farm, now two years old, with a flush of 25 bbls., is still putting 3 bbls. daily in tanks which makes wells of that quality valuable when connected to power pumping plants.

Nothing has been done in the way of testing out the Indiana side of the line, which is only about 4 miles west of Payne and less than 3 miles west of Payne Pool. Some years ago a few wells were drilled along the State line, and all had fair showings, but gushers in Wood, Allen, Hancock, Sandusky, Mercer, Auglaize, Van Wert and other fields, attracted attention away from that area.

Illinois Field

The Wabash County area is the most active and is developing the best wells found in any of the producing fields of Illinois at this time. The wells are not large, but their staying production is noted. This is known as the Allendale Field and some years ago was found to be very spotted, but a couple of years ago the new addition to the south of the old field was opened by a discovery well on the Della Wright farm, Section 8, Wabash Township, and many fine producers were found, although some failures were discovered in among the best producers. The field quieted down again until a short time ago when the Arkansas Fuel Oil Co. secured an interest with Fred L. Hartman and C. H. Parrott, two of the old timers in the Allendale Field, and things commenced to go right at the jump off.

There are 15 strings of tools working in what is termed the Allendale Field and there would be a lot more if the price of crude would show an upward tendency. It is the belief among those familiar with the area that the next few years a real oil field will be opened in Wabash County. It has numerous wells that had a nice showing but the sand is very irregular, still a showing really means a good well a location away in some direction, for if the sand is picked up with even a rainbow showing it means that the sand is there and thickens up within a location in some direction, and when you once get the sand and a well you have something worth while, and a production that will stand up.

The big production of recent date has been about 4 miles to the west and southwest of Allendale, in both Wabash and Friendsville Townships, with some nice production south of the town as well as to the southeast, and some excellent looking virgin territory lying between the present pools bound to be drilled within the near future.

Important Wildcats

The Wabash Drilling Co., owned by Fred L. Hartman, C. H. Parriott and Joe S. Young, Jr., has five strings of drilling tools in the field and they are busy at all times. These three parties are also pioneers in the field, and much credit is due their efforts in making the field the most prominent now under operations in Illinois. Being early entrants to the field they secured a large acreage and are now busy developing it.

Some very important wildcat wells are now under way that will mean much for the Wabash County Field should they come in commercial producers. Hanley and others are locating a very important venture on the V. B. Compton 160 acres, just north of Allendale, in Section 11, Wabash Township, about 2 miles east and a little south of the old Biehl Pool.

About 3 miles south of Allendale and slightly east, and just north of a bend in the Wabash River, Phipps & Blosser made a location for a test on the L. Chapman 92 acres in Section 25, same township. This well is also about 2½ miles up the river from the town of Patton, and about 6 miles north from the well drilled a year ago on the Indiana side in White River Township, Gibson County, Indiana. The same parties have also made a location for a wildcat well on the Winters farm, Section 24, Wabash Township, and northeast of the location on the Chapman lease. Northeast about 2 miles from the Chapman location, Sargent and others made a location for another interesting test on the J. Stillwell farm, in the northern part of Section 18, same township, nearly 2 miles east of Allendale. These three ventures, along with the fourth on the Compton farm, will test a large area between the Wabash River and Allendale.

On the John Leek farm, about 3 miles southwest of Allendale, in Section 22, Wabash Township, Joe Young, Jr., gave his No. 1 a shot and made a 10-bbl. producer. No. 2, same farm, is now drilling. Top of Biehl sand was found at 1.496 feet and drilled 12 feet in. In the same section the Edmondson Oil Co.'s second test on the Price heirs' farm, showed 50 bbls. with top of Biehl sand at 1.490 feet and 12 feet in. The Coon Creek Oil Co.'s No. 2 Alice R. Biehl farm, Section 16, showed 25 bbls. with top of Biehl sand at 1.492 feet and 16 feet in. Wirebaugh and others are drilling No. 1 Clara Adams farm, Section 23.

Three New Producers

In Friendsville Township, same county, the Arkansas Fuel Oil Co. and Hartman & Parriott brought in three new producers from the Biehl sand formation, 4 miles west and a little south of Allendale. No. 1 on the J. T. Newson, Section 18, produced 15 bbls. with top of sand at 1.520 feet and 12 feet in; No. 1 B. F. Price, Section 19, pumped 15 bbls. with top of sand at 1.522 feet and 16 feet in; No. 1 J. T. Smith, Section 17, did 20 bbls. with top of sand at 1.517 feet and 20 feet in. Same parties have a rig for a well on the Matheney farm, Section 18.

In Wabash Township, same county, the Arkansas Fuel Oil Co. and Hartman & Parrott are drilling No. 1 Earl Leighty, Section 8, and No. 1 J. W. Mullinex, same section, both being close to the productive Della Wright lease. Black Gold Oil Co. is drilling a second well on the J. T. Smith farm, Section 15.

In Bond Township, Lawrence County, the Peoples Banking & Trust Co.'s No. 3 on the southeast corner of the W. B. Fitch, Section 30, pumped 1 bbl. from a depth of 889 feet.

Indiana Field

No completions were reported from the old Trenton Rock area of eastern Indiana nor from the Princeton Field, in the southwestern section of the State during the week.

The operations of the Wiser Oil Co. in Indiana were increased recently by the purchase of an additional property near the present holdings of the company, in Pike County, in the Princeton district. The lease is known as the Beck farm, located in the western part of Section 24-1-9, Logan Township, and adjoins the Phillips lease operated by the Wiser Co. The new property contains 34 acres and two producing wells, all connected. There are several favorable locations on the lease which may be productive. Negotiations were completed for the property through A. F. Becker of Petersburg, Ind., president of the A. B. C. Oil Co., who first drilled the lease. The fact that the lease adjoins the Phillips, makes it more valuable to the Wiser Company, as the wells can be hooked to the power plant now doing work on the Phillips farm.

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NATURAL GAS DEVELOPMENTS

GAS NOTABLES ENJOY GOLFING TOURNAMENT

OIL CITY, Pa., Sept. 6.—Raymond Cross, president of the United Natural Gas Co., entertained many prominent gas men at a golfing tournament at the Wanango Country Club recently.

Two teams, captained by George W. Crawford, of Pittsburgh, and S. Y. Ramage, of Oil City, were chosen from the following list of guests: George H. Jones, of New York, vice president and treasurer of the Standard Oil Co. of New Jersey. Christy Payne, of New York, assistant to Mr. Jones; George W. Crawford, of Pittsburgh, president of the Ohio Fuel Supply Co.; Fred W. Crawford, of Pittsburgh, general manager of the Ohio Fuel Supply Co.; L. B. Denning, of Pittsburgh, president of the Lone Star Gas Co.. T. B. Gregory, of Pittsburgh, president of the Manufacturers Light & Heat Co.; George W. Radcliffe, of Pittsburgh, assistant to Mr. Gregory; Charles H. Rupp, of Pittsburgh, treasurer of the Peoples Natural Gas Co.; R. D. Beardsley, of Pittsburgh, treasurer of the Hope Natural Gas Co.; S. M. Meals, of Pittsburgh, president of the Carnegie Gas Co.; George W. Whitmore, Sr., of Pittsburgh, general manager of the American Gas Co., George Whitmore, Jr., of Pittsburgh; A. Hurlbert, of Pittsburgh, vice president of the Equitable Gas Co.; A. A. Armstrong, of Pittsburgh, assistant general manager of the Union Gas Corp.; B. C. Oliphant, of Warren, president of the Pennsylvania Gas Co.; H. H. McConnell, of Warren, secretary of the Pennsylvania Gas Co.; A. G. Hogue, of Pittsburgh, engineering of the Hope Natural Gas Co.; J. C. Chisler, of Pittsburgh, engineer of the Hope Natural Gas Co.; W. B. Way, of Pittsburgh, general secretary of the Natural Gas Association; Walter Sprengle, of Pittsburgh, treasurer of the Natural Gas Co. of West Virginia; S. Y. Ramage, J. B. Crawford, Claude Slicker, H. H. James, A. C. Burwell, James Fry and George E. Welker, all of Oil City.

The Crawford team led by a 22-19 score.

The guests were served with lunch and dinner at the clubhouse.

OKMULGEE'S GAS RATE

OKLAHOMA CITY, Okla., Sept. 6.—Troubles between the Okmulgee Gas Co. and the city officials of Okmulgee and Morris were terminated recently when the Corporation Commission approved an agreement whereby the basic gas rate at those places is to be reduced from 50 to 48 cents per 1,000 cubic feet. The rate is to be effective only so long as the gas company can get gas at the gate at 22½ cents. The controversy was of long standing. In February, 1922, the Commission fixed a rate of 45 cents. The gas company appealed to the Supreme Court and secured a reversal of the order. Litigation over balances due between the two rates was settled when the agreement was effected.

LARGEST GAS METER

The largest gas meter in the world is on display at the British Empire Exhibition at Wembley, London. It is 12 feet high and 13 feet deep. Sixteen-inch pipes feed the meter, which takes in 50,000 feet an hour. Thirteen miles of gas mains extend from the meter to supply service for many different processes, from rivet-heating to candy-making. On the exhibition grounds are 54 restaurants, in which all the cooking is done with gas. They consume 2,000,000 feet a week, or enough to supply a community of 20,000 people. Five thousand gas lamps illuminate the main amusement park.

ANOTHER SAND AT ARMINTO

CASPER, Wyo., Sept. 6.—Wyland Syndicate, drilling in NW quarter, Sec. 20-37-86, Arminto Station, ran into another sand and has approximately 3,000,000 or 4,000,000 feet more natural gas. The second sand was found at 1,950 feet. It will be remembered that another flow was found in a sand at 1,787 feet variously estimated at 500,000 to 1,000,000 feet. The next objective is at 2,000 feet where the oil horizon is expected to be reached. There is a difference of opinion as to whether the gas from the two sands is coming from stray streaks in the shale or whether they are true sands in the Frontier series. The test is being closely watched by the scouts and the gas discovery is regarded as important as indicating a closed structure with good prospects for oil by deeper drilling.

ELIMINATE STARTING DATE

OKLAHOMA CITY, Okla., Sept. 6.—A new rule adopted by the Commissioners of the Land Office relating to the leasing of State lands for oil and gas purposes eliminates dates in contracts for the starting of drilling and provides only for completion of wells in a specified time. Most of these contracts call for completion within a year. Several contracts naming specific dates for drilling to start have been amended. The Commissioners have fixed a minimum bond of $10,000 to be executed by those contracting to drill on State lands in wildcat territory. A smaller bond is acceptable in proven or semi-proven territory.

GAS OFFICIALS TRANSFERRED

J. G. Tooker, formerly new business manager of the Salina Light, Heat & Power Co., of Salina, Kans., a Cities Service subsidiary, has been appointed new business manager of the gas division of the Empire companies to take the place of A. W. Baker, who goes to Kansas City, Mo., to take the position of new business manager of the Kansas City Gas Co., recently purchased by Henry L. Doherty & Co., for the Cities Service company.

OKLAHOMA GAS RATE HEARING POSTPONED

OKLAHOMA CITY, Okla., Sept 6.—The State Corporation Commission has again postponed the gas rate hearing based on a new valuation of the Oklahoma Natural Gas Co. which supplies distributing companies in 63 towns and cities in Oklahoma.

The commission first ordered that the company accept a suggested rate, based on a part valuation of the company's assets, or show cause why it should not accept the rate. The suggested rate was 30 cents for 1,000 feet of gas, a reduction of 8 cents.

The hearing has now been postponed until September 17, to give attorneys for both sides an opportunity to study the valuation report submitted by the E. E. Black Engineering Co. of Kansas City.

The valuation placed on the transmission lines from the mouth of the wells to the gates of the cities served was $8,738,213.20. This is the present valuation with depreciation figured in. The reduction cost was figured at $11,105,824.87 by the engineers.

The present rate, fixed by the Supreme Court, is based on a valuation of $14,000,000 on the transmission lines. The rate is based on a total valuation of $17,000,000, but $3,000,000 is on distribution lines owned inside city limits.

BOUGHT BY PEOPLES NATURAL

PITTSBURGH, Pa., Sept. 6.—The Peoples Natural Gas Co., a subsidiary of Standard Oil of New Jersey, has been granted permission to buy the assets of the Altoona Gas, Light & Fuel Co., manufacturers and distributors of artificial gas, at a price reported to be $200,000. J.B. Tonkin, vice president of Peoples Gas, says the Altoona company's plant will continue operating with natural gas being mixed with artificial during peak demand of winter. The Altoona company serves a population of about 64,000 and has been operating at a loss for several years. It was incorporated in 1911 as a subsidiary of the United Gas & Electric Co. Peoples Natural Gas has been operating in Altoona and vicinity for about 12 years.

NEW MANAGER AT MIAMI, OKLA.

George Matthews, transferred from the Empire Companies' purchasing department to the gas division, has been appointed manager of the Consumers Gas Co. at Miami, Okla. W. T. Watters, who has been the local manager for several years, is now general superintendent of operations in the district.

Mr. Matthews joined the Doherty organization in 1911 as a junior engineer with the Denver Gas & Electric Co., was transferred a year later to the Citizens Gas & Electric Co., Mt. Vernon, Ill., and in 1913 was assigned to the auditor's office of the Danbury and Bethel Gas & Electric Co., Danbury, Conn. He was made assistant manager in 1917 of Crew Levick Co. at Fort Worth, Tex., and later transferred to the Empire Companies. He joined the oil production forces at Oil Hill, in 1920, and returned to Bartlesville in April, 1923, to become assistant purchasing agent, which he held until April, 1924.

FIRST OUTLET FOR GAS IN DUNCAN DISTRICT

DUNCAN, Okla., Sept. 6.—A most important development in the Santa Fe district of the shallow Stephens County areas in some time is the entry into the territory of two gas lines which are now being completed and which will furnish the first outlet for gas in the field, permitting a number of wells which have been capped for some time, some of them for a period of more than two years, to be opened and their output marketed. It is estimated that the combined yield of the gassers which are now shut in will total between 15,000,000 and 20,000,000 feet daily, with production coming from sands between 600 and 800 feet. The only line which has been taking gas out of the field is one completed last March by Magnolia Petroleum Co. and which has been used chiefly for transportation of output of Magnolia wells.

The two new lines include a 6-inch and a 4-inch high pressure line, running from the Santa Fe Field in 10-2s-4w, to the Loco district in 15-3s-5w, where connection is made to the Lone Star station. The lines are about 8 miles in length and parallel each other.

Another new gas line in the Loco district is a 6-inch laid by the Lone Star company from its station to a gas well in 17-3s-5w, capped with yield coming from the 1,000-foot sand. It is believed that the laying of this line indicates that the Lone Star company contemplates drilling more gas wells in the area, inasmuch as at this time the line is connecting to but one gasser.

SPEECHLY SAND OIL NOT GAS LESSEE'S

FRANKLIN, Pa., Sept. 6.—In the case of Sheldon A. Blauser vs. Robert L. Lamberton the quarter sessions court held that the owner of the land on which other persons have leases for the gas rights is entitled to any oil which may be found in connection with the drilling for gas, less the cost of production, which is given by the court at about $10 per month per well for pumping off water. The case is of a peculiar nature in that setting is on the Speechley sand district in Cranberry Township, where very little oil is found. It appears that Mr. Lamberton had a lease for gas on the property of Mr. Blauser and while drilling struck oil. He contended that Mr. Blauser was entitled only to the customary one-eighth royalty on the oil. An equity suit was instigated by Mr. Blauser with the above recorded decision by the court.

CAMBRIDGE COMPRESSING STATION HAS NOTABLE MECHANICAL EQUIPMENT

Differing materially from other power installations the selection of mechanical equipment for use in the transmission of natural gas from the well to the ultimate consumer generally follows certain set practices. It is not subject in any way to local conditions, such as usually govern the building of a water, electric or other type of power plant, the prime requisite being to provide a rugged, ever-ready unit, capable of rendering 24-hour service, yet one which combines economical performance with dependability.

To fulfill this requirement the Empire Natural Gas Co., a Cities Service Co. subsidiary, in the building of its Cambridge Gas Compressing Station, a plant recently completed at Cambridge, Kans., selected a standard type of 4-cycle, horizontal, single tandem, double acting gas engine. This class of prime mover carries a guarantee that it will deliver a B.H.P. hour on 10,000 btus and past practice has proven its merit in rendering continuous service.

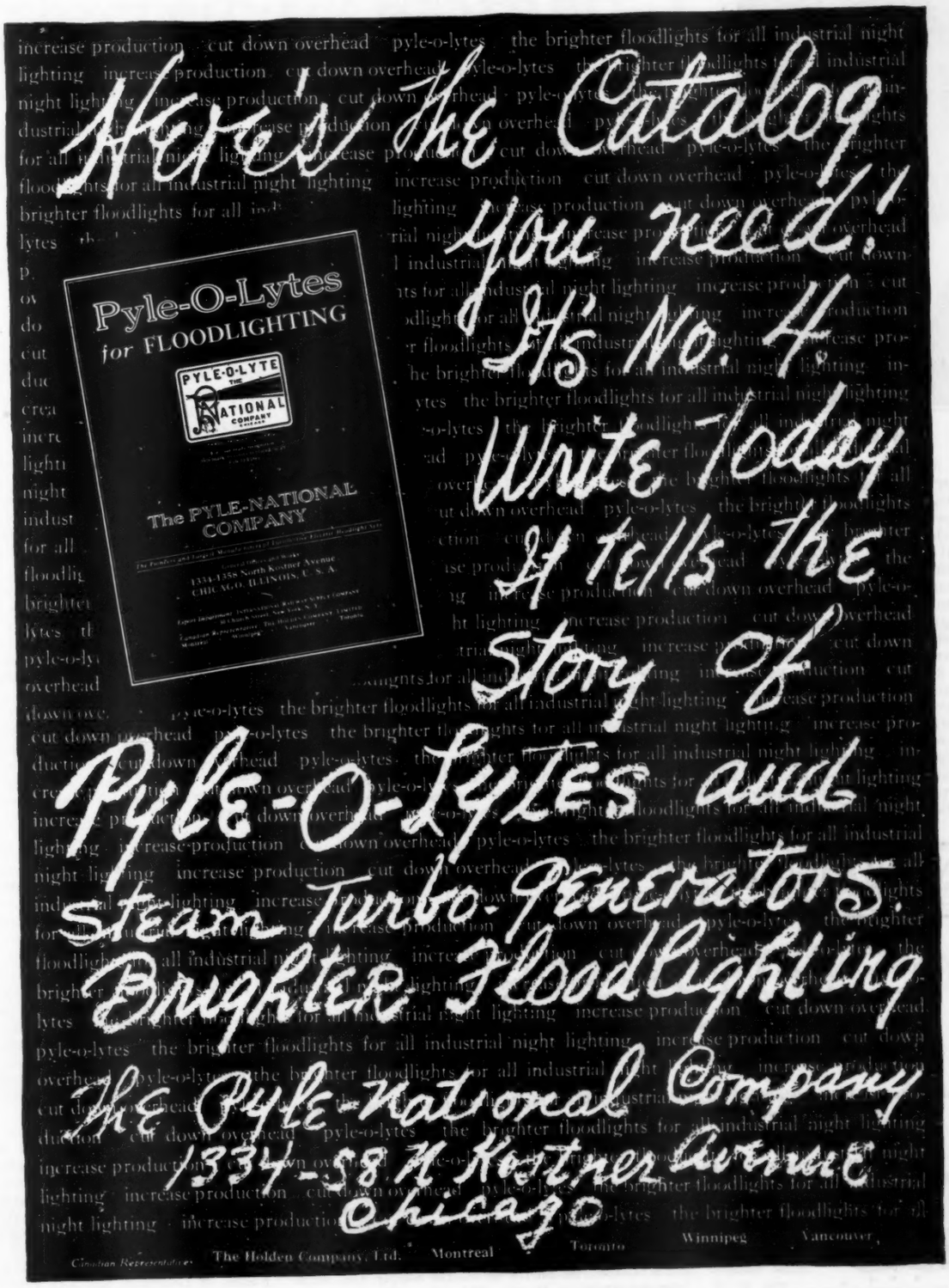
Have 13 Stations

Cambridge Compressing Station is one of 13 located at vantage points on the Empire Natural Gas Co.'s pipe line system. Altogether this system contains approximately 3,000 miles of main and gathering lines through which service is rendered to almost one and a quarter million people within the States of Kansas, Oklahoma and Missouri. Providing this service requires an approximate annual output of 35,000,000,000 feet of gas.

The plant at Cambridge is not large compared with others in service on the Empire properties. It is exceeded in size by four other plants, the largest of which contains equipment having a combined h. p. rating of 10,000. However, there are incorporated in the Cambridge plant several features of design of interest to readers not in intimate touch with the methods employed to facilitate the transportation of natural gas through pipe line systems of any considerable length. Considerable attention was given to providing a gas manifold in which simplicity was the first consideration, yet combining features which provide the desired flexibility necessary in the manipulation of pressures where there are several sources of supply and more than one compressor unit.

The compressor units are composed of four horizontal, single tandem, double acting, four cycle, 21½-inch by 36-inch, 485 B.H.P., 125 R.P.M. Cooper gas engines, direct front connected to four 15-inch by 36-inch Class B-36, plate valve

(Continued on Page 100)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MEN KNOWN IN OILDOM

G. W. Mosley

G. W. Mosley has been active in the sales and purchasing end of the oil industry in the Mid-Continent Field during the past ten years. Born on a farm near the town of Mineola, Texas, he attended the country schools in that locality. Later he took special courses at the Sam Houston Teachers College. After leaving school he moved to Dallas and engaged in the real estate business for a short time. In 1913 he became connected with the sales department of the Empire Refineries, Inc., at Tulsa.

After four years in the service of the Empire company, he became affiliated with the Skelly Oil Co. in the sales department, Kansas division, and was with this concern for fourteen months resigning to accept a position as manager of the White Eagle Oil & Refining Company's operations in the North Texas Field, with offices at Fort Worth, Texas. Though his connection with the oil industry has been comparatively brief, few men are better known to the active men in the oil business throughout the Mid-Continent than is George Mosley.

PERSONAL PARAGRAPHS

S. M. McGarvey, of the Prairie Pipe Line Co., at Craig, Colo., visited friends in Casper, Wyo., recently.

* * *

W. G. Harris, drilling superintendent for the Caribbean Petrol Co., has sailed for Maracaibo, Venezuela.

* * *

G. H. Ackerman of James B. Berry's Sons Co., Chicago, has left for a three weeks' motor trip through the West.

* * *

E. H. Steiger of Milwaukee, Wis., president of the New York Oil Co., has been in Casper, Wyo., recently on business.

* * *

Northrop Clarey, editor of "The Lamp," official organ of the Standard Oil Co. of New Jersey, has just returned from Europe.

* * *

John B. Tonkin, vice president of the Peoples Natural Gas Co., Pittsburgh, Pa., is spending his vacation at Atlantic City, N. J.

* * *

L. L. Marcell, president of the White Eagle Oil & Refining Co., Kansas City, Mo., visited friends in Casper, Wyo., recently while on a trip to Glacier National Park in Montana with his family.

William Francis, Rocky Mountain representative of the National Transit Co., Denver, spent several days in Casper, Wyo., last week.

* * *

H. N. Mooney, sales engineer southwestern division Vacuum Oil Company, returned to Tulsa this week after a tour of his territory.

* * *

O. E. Stoner, geologist for the Josey Oil Co., Okmulgee, Okla., returned recently from a vacation spent with his parents at Gentry, Ark.

* * *

H. A. Savage, secretary to Mr. Crebbs of the South American Gulf Oil Corp., has returned to the United States to undergo an operation.

* * *

Harold Walters, of the purchasing department of the Standard Oil Co. of New Jersey, has announced the arrival of a baby girl at his home.

* * *

W. E. Lockhart, vice president and general manager of the Producers & Refiners Corp., Denver, spent several days in Casper, Wyo., recently.

* * *

Dr. Joseph E. Pogue, of New York petroleum economist and author of several books on oil, is a visitor in the Mid-Continent Field this week.

* * *

H. S. Grayson, president of the Forest Oil Co., has been absent from his home in Washington, Pa., spending some weeks at Watkins Glenn, N. Y.

* * *

Talbot Wildman, scout for the Amerada Petroleum Corp., Okmulgee, is spending his vacation in New York City and various places in the New England states.

* * *

M. J. Delaney, drilling contractor of Dallas, Tex., was in Casper, Wyo., recently looking after several strings of tools which he has working in the Teapot Dome area.

* * *

H. C. Fisher, for several months representative of the Chicago Bridge & Iron Works, at Casper, Wyo., has been transferred to the Whiting, Ind., offices of the company.

* * *

George H. Jones, vice president and treasurer of the Standard Oil Co., of New Jersey, has been the guest of Dr. George N. Fry, of Oil City Pa., for several days.

* * *

G. M. Swindell, secretary of the Chamber of Mines and Oil, San Francisco, Cal., has recovered from a recent operation and is back on the job with as much enthusiasm as ever.

* * *

George L. Brodie, former manager of the Chicago office of the Fred G. Clarke Co., has returned from his trip to the north woods and will soon announce his future business plans.

* * *

John B. Corrin, vice president of the Hope Natural Gas Co., and president of the Natural Gas Association, slipped away from the heat of Pittsburgh for a short vacation at Perth, Ontario.

* * *

C. B. Herndon, representing the Primrose Petroleum Company of Dallas, San Antonio and Wichita Falls, was a Houston, Tex., visitor the past week, looking over marketing conditions.

* * *

M.G. Graff, of the Denver offices of the Westinghouse Electric & Manufacturing Co., relieved L. V. Frickel, manager of the Casper, Wyo., office, while Mr. Frickel enjoyed a short vacation.

* * *

C. L. Drader, general superintendent of the Kern River Oilfields, Ltd., has been transferred from Taft, Cal., to Los Angeles to assume charge of the company's operations in Southern California.

* * *

Mrs. Blanche Shefts of Shefts Supply Co., with headquarters at Morris, Okla., is convalescing at Rochester, Minn, where she recently underwent a severe operation at Mayo Brothers hospital there.

* * *

A. C. McLaughlin, vice president of the Associated Oil Company and president of the Chamber of Mines and Oil, San Francisco, will address the American Mining Congress at its annual convention in Sacramento, September 29.

W. E. Hopper, of Shreveport, La., engineer and natural gas expert, has been in Casper, Wyo., recently investigating the possibilities for piping gas from the Baxter Basin Field to Salt Lake City.

* * *

W. A. Cowle, assistant superintendent of the Kern River Oilfields, Ltd., has been placed in charge of the company's operations in the Midway field following the transfer of C. L. Drader to Los Angeles.

* * *

Elisha Walker, president of Blair & Co., New York City, and a director in the Pan American Petroleum & Transport Co., visited the offices of the latter company in Los Angeles during the past week.

* * *

F. P. Dodge, superintendent of the Port Arthur refinery of The Texas Co., and W. K. Holmes, superintendent of the West Tulsa plant for the same concern, have been visiting the company's plant at Casper, Wyo.

* * *

C. J. Smith, formerly in charge of the refinery of the White Eagle Oil & Refining Co., at Casper, Wyo., is now agent for the refined products of The Texas Co. in Washington and Oregon, having his headquarters in Seattle.

* * *

John P. Herrick, of Olean and Bolivar, N. Y., was a recent business visitor in Casper, Wyo., and the Rocky Mountain fields. Mr. Herrick is an oil producer and editor, as well as a stockholder of several prominent oil companies operating in the Rockies.

* * *

Dr. Gerald L. Wendt, director of the research for the Standard Oil Co. (Indiana), was recently appointed dean of the school of chemistry and physics at Pennsylvania State College. Dr. Wendt is a Harvard graduate and will be the youngest dean in the college, being only 35 years old.

* * *

Among the prominent oil men returning from vacations in Europe during the past week were Peter M. Speer, general counselor of the Standard Oil Co., of New York; Judge Amos L. Beaty, president of The Texas Co., and Benjamin Moffat, Jr., of the Standard Oil Co. of New Jersey.

* * *

J. H. McDonald, connected with the Independent Oil Producers Agency since its inception over twenty years ago, has been dangerously ill in a San Francisco hospital with blood poisoning for the past few weeks. He has passed the crisis and his many friends will be glad to learn a speedy recovery is expected.

* * *

E. L. Haskins, formerly vice president of the Independent Gasoline Dealers' Association, Dallas, was elected president of the association at the recent semi-annual meeting. Other officers include Jack Estes, vice president; E. L. Hawkins, secretary-treasurer; and W. A. Nelson, business manager and chairman of the board of directors.

* * *

Hugh B. Hodges, who joined the organization of the Lucey Manufacturing Corporation as sales manager several months ago, has returned from an extended trip through South America. Mr. Hodges reports that business in South America is good. He is now in southern Oklahoma telling some of the old timers how they do it in South America.

* * *

Included with the well known oil men who have been in Chicago during the past week have been George N. Moore, of the Moore Refining Co.; E. B. Perry, of Cosden & Co., on his return from a short trip to Europe; P. M. Miskell, of the Empire Refineries, Inc.; J. J. Taxman, of the Taxman Refining Co., and E. B. Reeser, of the Barnsdall Corp.

* * *

W. J. Everett, private secretary to Governor Fuqua, of Louisiana, has been appointed state commissioner of conservation to succeed Major Frank T. Payne, who has been acting commissioner since the adjournment of the State legislature. Mr. Everett will assume his duties as commissioner about September 1. The new commissioner has a wide acquaintance throughout Louisiana, having taught for four years in the Louisiana Polytechnic Institute at Ruston, and spent several years in newspaper work in Monroe and New Orleans.

Electrical Rotary Drilling Finally Perfected

Oil Well Supply Co. announces a new *electrical* application for Rotary Drilling; namely, the

"OILWELL" HILD DIFFERENTIAL DRIVE

(PATENTS PENDING)

After several years of theoretical and practical research and test, this, the next logical and most modern step in the development of drilling equipment, has been demonstated to be a marked success, and far superior to all other drilling methods.

The "Recording Charts" (which register and record a continuous log of drilling operations) are to the drilling industry what the Speedometer is to the automobile.

Write to us at Pittsburgh for full information.

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World's Largest Manufacturers of Oil Field Equipment

EQUIPMENT AND SUPPLIES

HOOVER STEEL BALL BUYS BEARING PLANT

Of interest to those engaged in the automotive or general mechanical industry comes the announcement that the Hoover Steel Ball Co., of Ann Arbor, Mich., has purchased the Imperial Bearing Co., of Detroit. The equipment of the latter plant will shortly be moved to Ann Arbor and housed in the buildings of the Hoover Steel Ball Co.

A desire to render more complete service to manufacturers using balls and bearings as well as to strengthen the organization by being able to increase its output and make full use of the large plant at Ann Arbor impelled the Hoover Steel Ball Co. to broaden its field. Plans call for a program that will not affect present customers who have depended upon the parent company for their supply of steel and other metal balls for this part of the business will function as in the past.

New machinery and equipment in addition to that purchased from Imperial is being added so that ball thrust bearings, roller bearings and ball retainers will be produced for manufacturers using such products. Stress is laid on the fact that the new program does not include the manufacture of annular or radial ball bearings now being produced by other bearing companies manufacturing these high grade bearings for automotive and other machine applications.

The personnel of the company remains the same with H. D. Runciman as general manager. S. A. Strickland, manager of the Imperial plant, will be manager of the bearing division. Mr. Strickland also becomes a director.

TO PROTECT SURFACE OF STRUCTURAL WORK

The slogan "Save the surface and you save all" has a new exponent in the Louisiana Oil Refining Corp., as a new means of saving all through surface protection is attained in its Loreco asphalt paint. The company reports that its chemists have been working on an asphalt paint for a long time, and have now succeeded in producing it in commercial quantities and of a worthy quality. It is intended to protect and preserve the surface of structural work subject to attack by moisture, gases, alkali, acids, etc., and the company declares it also performs the function of an almost perfect insulator against the action of electrolysis.

In a pamphlet on the subject of asphalt paint the company recommends its product for coating the surfaces of automobile chassis and fenders, agricultural implements, bridges, boilers, barrels, pipe, iron fences, metal and composition roofs, tanks, cement vats, basements and swimming pools, silos, etc. This new Loreco product will be sold through paint jobbing houses, and in some few instances to large users direct. It is understood this is one step in a definite program of expansion undertaken by the company.

IMPROVED JUNCTION AND TERMINAL BOXES

The Key Boiler Equipment Co., of East St. Louis, Ill., is planning to feature its new improved junction and terminal boxes for use on oil heater tubes. These fittings will be of interest to refinery operators and engineers as it is said they represent a great saving in time and labor in stripping the stills at cleaning periods.

The Key company has conducted exhaustive tests in various refineries and offers to demonstrate that these boxes will meet any temperature and pressure conditions now existing in refineries.

GAIN IN STEEL BUSINESS HELD OIL COUNTRY GOODS PRICES FIRM

By B. E. V. Luty

PITTSBURGH, Pa., Sept. 8.—No change of particular importance has occurred in the steel situation in the past week. The gain in the volume of buying that was progressive for several weeks has been held, but there is no noticeable further increase. No change of consequence has occurred in steel prices, except that billets are off a dollar a ton.

Just when the turn occurred in the volume of steel buying cannot be stated, and the turn did not come at the same time in all lines, but as to the total volume of all buying, the turn probably occurred some time in June. There was no marked increase in July, though there was some, but during August there was a marked increase.

Steel mill operations were down to 40 per cent or less in the fore part of July, increasing thereafter until the rate now is slightly above 50 per cent. This is not so poor a rate as might seem, for the average operation of the industry from Armistice Day to the present time has been only about 66 per cent. This means a good tonnage even though the percentage looks low, for the capacity against which the percentage is figured is large, more than 50 per cent above the capacity just before the war. Thus while a 50 per cent steel mill operation is low, in a sense, it is not much below what must be considered normal from the post war experience.

Pipe Mills 75 Per Cent

The pipe mills continue running at fully 75 per cent of capacity, and thus have a better operating rate than other branches of the steel trade. The operation is helped by the line pipe business entered in the past four months, deliveries on which will continue for several weeks to come at a good rate. In oil country goods generally there has been a fair demand, better in the case of gas wells than in the case of oil wells. Demand for merchant pipe has increased somewhat.

Prices continue firm on merchant pipe and oil country goods generally. Pipe, tin plate and rails enjoy the distinction of not having declined from their high point, reached in April of last year.

Rolling billets have been quotable nominally at $38, Pittsburgh or Youngstown, for several weeks past, but there was no business to test whether this price would hold. Now one or two mills are openly quoting $37, and it is considered not entirely impossible that on an interesting inquiry a still lower price would be developed. Forging billets are commonly regarded as being $5 over rolling billets, hence it would seem they should now be quoted at $42 rather than at $43, Pittsburgh or Youngstown.

The increase in buying of steel in the past couple months has been well distributed among the different products and comes from various parts of the country, but two items have stood out prominently, line pipe and fabricated structural steel.

Rail and Car Queries

Two other lines are now coming to the front, judging by inquiries coming out in the past week or two, rails and freight cars. But little business has been done so far, but inquiry has become active.

Late in the old year there was heavy buying of rails for the first half of this year, with some orders running beyond July 1. The mills are now largely through with those orders and the new buying movement is chiefly for the first half of next year, though some rails are required for the late months of this year, particularly by southern roads. All told, there is inquiry for 375,000 to 400,000 tons of rails, this including the inquiry of the New York Central system for 170,000 to 175,000 tons, for 1925.

Inquiries for freight cars total about 13,000 cars. There was heavy buying in the first three or four months of this year, while since then scarcely anything has been done. The western car shops have completed their orders, with some small exceptions, while the shops hereabouts still have some business to complete.

The Texas Co. has distributed orders among independent mills for 100,000 boxes of tin plate to go to Port Arthur for making cans for export oil.

NEW DIESEL ENGINE AMERICAN DESIGNED

An entirely new design of two-cycle, double-acting Diesel engine, said to represent the greatest advance in the art yet made in America, and expected to mark an epoch in the development of internal combustion power machinery throughout the world, has been announced by the Worthington Pump & Machinery Corp. The new engine is stated to combine a fuel economy comparable with that of the best existing types of Diesel engine, with dimensions, weight and construction cost per horsepower approaching those of reciprocating steam machinery.

Another striking and important feature is that the horsepower per cylinder can from all indications be carried to a far higher value than any yet attained in Diesel engines, immensely increasing the field of possible usefulness of Diesel-type power, and making it an active competitor of steam power machinery over a much wider range. The first unit built in the Buffalo plant of the Worthington Corp. is very conservatively rated at 600 to 800 horsepower for a single cylinder unit, at speeds of 90 to120 revolutions per minute.

The new Worthington engine was wholly designed and built in America, and owes nothing to European patents or ideas developed abroad. Behind it is the Worthington company's 24 years of experience in building internal combustion engines, culminating in nearly four years of intensive research, study and experiment aimed directly at the production of the result attained in the new engine.

The problem before the Worthington engineers has been to produce an engine with the advantages of the Diesel engine in fuel and general operating economy, but approaching, in dimensions, weight and speed per horsepower, closely enough to steam machinery, to permit it to be substituted for such machinery in ships already built, at no prohibitive cost either for the engine or for the job of installation. An additional point of great importance to marine engineers was that of maneuvring qualities. A marine engine must be capable of being started, stopped and reversed quickly, and with ease and certainty of control. This particular is one reason why the reciprocating steam engine has so long held its ground in competition with both the steam turbine and the Diesel engine.

The basic principle underlying the Worthington engine may be briefly stated to be: In the four-cycle Diesel engine one stroke in four is a power-stroke; in the two-cycle engine one stroke in two; in the new engine every stroke is a power stroke. Its working cycle, therefore, is virtually the same as that of a reciprocating steam engine. The cylinder of the new engine might be described as composed of two single-acting cylinders, opposed end for end and working in opposite directions, their respective pistons flanged to the same rod, the scavenging and exhaust ports, cooling water circulation and expansion provisions of the two being virtually independent of each other. There are three fuel spray valves, one on top of the upper end of the cylinder, and two in the bottom head on opposite sides of the piston rod, entering at an angle. One of the admirable points of the design is the ingenuity with which these two valves are worked out so as to give a uniform and symmetrical distribution of the charge around the piston rod.

The reversing mechanism is second only to the cylinder design. Each of the three valves has its own cam, all three geared to the same shaft. The cams are symmetrical, and all that is necessary to reverse the running direction is to shift all three cams simultaneously through 34 degrees on the shaft.

The engine is started and stopped by a single lever, which as it is moved forward successively opens the air starting valves, then the fuel supply valves, simultaneously closing the air starting valves; the lever being then capable of setting, by a ratchet and pawl, at any desired fuel supply. To stop, all that is necessary is to throw this lever back to the stop position.

TRUCK AIR SPRINGS IN OIL FIELD WORK

"Business took a decided swing upward in July, with the biggest month in sales volume for Gruss Air Springs," says F. H. Burr, director of the automotive division of the Cleveland Pneumatic Tool Co. Mr. Burr went on to state that more and more operators of fleets of trucks were realizing the necessity for equipping their trucks with some means of absorbing road shocks and vibration. This is particularly true in the oil industry with its heavy trucks and bad road conditions in the producing division.

In order to take better care of the oil industry and give the right kind of service, the Cleveland Pneumatic Tool Co. has adopted a policy of putting sales and service stations in practically every city of any size in the country. There are now a little over 90 of these stations established and during the past few months 40 had been added among which are Tulsa and Oklahoma City and Muskogee, Okla.

In addition to these stations there are three service men who are continually on the road. These men are so routed that within 24 hours they can be in practically any city in the country for emergency installation or service if necessary. The Cleveland Pneumatic Tool Co. will exhibit at the International Petroleum Exposition space in the New York Building and Mr. Burr will be there along with H. A. Lantz and F. H. Blakeslee, division sales managers.

PROPERTY OWNER'S HANDBOOK

"The Property Owner's Handbook" is the title of a new 32-page booklet issued by the American Appraisal Co., Milwaukee. This booklet is a record of 38 profitable uses of American Appraisals over and above the usual major applications of appraisal reports as embodied in the requirements of insurance, accounting, finance, purchase and sale, and taxation. All of the material presented in this booklet has been gathered from the company's contact with its clients, and constitutes a collection of valuable suggestions which anyone responsible for the management of property will find of interest.

The WARREN CITY
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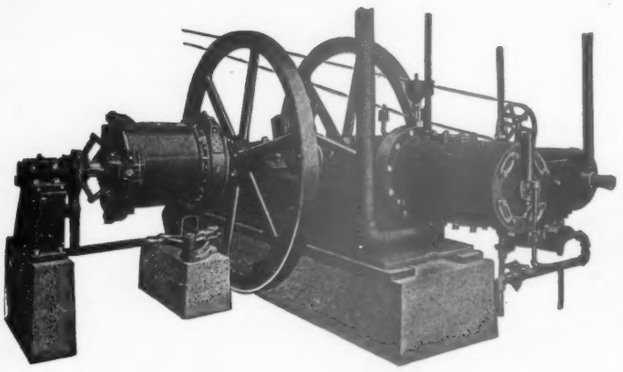


A Well Drilling Record of Reliability and Economy

A contractor in the Bradford, Pennsylvania, field, drilling with two 30 HP Reid Gas Drilling Engines has given us the following report.

He purchased his first Reid Gas Drilling Engine in November, 1922, and has drilled 11 wells with it. His second engine was purchased in September, 1923, and has drilled five wells. The depths of these wells ran from 1400 to 1600 feet, *and on none of them was the drilling time over 11½ days.*

Fuel costs were only kept on two wells and were $17.00 and $15.30 respectively, gas costing 30c M. The average daily consumption of gas was approximately 4500 cubic feet.

Time and fuel saving were not the only economies, however. In the drilling of these 16 wells, the total expense for repair parts was but *ninety cents* and the engines are good for many more wells.

An engine which can drill not only one but several 1400 to 1600 foot wells in 11½ days time for each, with a fuel cost of about $17.00 per well and a total expense for repair parts of but ninety cents and this on two engines and sixteen wells, *is reliable, durable and economical.*

Let us tell you some of our other records. We will gladly furnish them at your request.

Ask for Bulletin No. 28—"Drilling Wells with Reid Gas and Oil Engines."

Joseph Reid Gas Engine Company
Oil City, Pennsylvania, U. S. A.

BRANCHES AND AGENCIES—Marietta, Ohio; Logan, Ohio; Newark, Ohio; Ft. Recovery, Ohio; Shreveport, La.; Charleston, W. Va.; R. B. Moore, Bolivar, N. Y.; Bradford Supply Co., Robinson, Ill.; Frick & Lindsay Co., Bradford, Pa., and Kentucky Distributors; S. R. Shoup, 708 Pacific Electric Bldg., Los Angeles, Cal.; Oklahoma, Kansas, Texas, Arkansas and Wyoming, Frick-Reid Supply Company, Tulsa, Oklahoma, and Branches.

BRANCH SHOP—TULSA, OKLAHOMA

GASOLINE PROBLEMS DISCUSSED BY AMERICAN CHEMICAL SOCIETY

ITHACA, N. Y., Sept. 8.—Chemistry's advance toward solving the problem of how to get more gasoline from natural gas is being described by experts from industries and universities at the Fall meeting of the American Chemical Society, at Cornell University, September 8 to 13, Erle W. Billings of Rochester, secretary of the Society's Division of Industrial and Engineering Chemistry, is conducting the symposium.

"This is a problem," said Mr. Billings, "which is ever staring the chemist and engineer in the face. The almost phenomenal increase in motor vehicle and stationary gas engines produced each year is making it necessary for the chemist to get higher yields of gasoline from the already diminishing source of supply."

"Absorption will be the theme of the industrial group. There is hardly a chemical industry in which absorption does not play some part either directly or indirectly. For instance, the manufacture of illuminating gas, which is used in large quantities in every civic and industrial center throughout the world.

"It is often wondered why the burning of the coal in the grate of a furnace sometimes liberates a gas which is very disagreeable in odor. The gas that causes all this trouble is hydrogen sulphide which has the odor of rotten eggs. Every gas company throughout the country is confronted with the problem of removing every trace of this before it reaches the home or industry. For instance, coal gas or water gas entering the purification apparatus contains from 100 to 800 grams of hydrogen sulphide per 100 feet of gas, while the gas leaving the purification apparatus on its way to the home or industry must not stain a piece of white blotting paper moistened with sugar of lead even for one minute. Thus it is readily seen that the efficiency of this purification process must be practically 100 per cent. A paper will be given describing a new method for removing this disagreeable gas from illuminating gas.

"Some years ago every one was interested in Halley's comet, pseudo-scientists predicting that all the inhabitants of the earth would be killed as the earth passed through the tail of Halley's comet in which there was a trace of this (hydrocyanic) gas. However, there were no casualties as a result of the earth passing through the tail of this comet and there is no need to worry about any hydrocyanic gas being delivered in the home along with the illuminating gas, because it is all removed by a process of absorption, which removes hydrocyanic acid gas at the same time, thus eliminating a second operation."

A summary of some of the papers to be read follows:

Chemistry of Sweetening

The Chemistry of "Sweetening" by Gerald L. Wendt and S. H. Diggs, Standard Oil Co. (Indiana.)

Although naphthas and kerosenes have been sweetened by the sodium plumbite method for many years the process is entirely empirical and the chemical reactions have not been understood. The present paper shows that sweetening consists in the removal of hydrogen sulphide and of alkyl mercaptans which are the only compounds responsible for sourness. Other compounds, including free sulphur, sulphides and disulphides do not give the doctor test. The reactions involved in the use of sodium plumbite with hydrogen sulphide and with alkyl mercaptans have been studied in detail and have furnished explanations of the various complications which appear in sweetening including the coloration of the precipitate, the coloration of the oil, the function of free sulphur, the occasions on which sulphur is required, the differences between sweetening gasolines, kerosenes and pressure distillate and the sourness developed in rerunning a sweetened oil.

The action of petroleum refining agents on pure organic sulphur compounds dissolved in naphtha, by A. E. Wood with A. Lowy and W. F. Farragher, University of Pittsburgh.

A study of the action of sulphuric acid, sodium plumbite, copper oxide, aluminum chloride and sodium hypochlorite on naphtha solutions of the alkyl sulphides, alkyl disulphides, mercaptans, thiophene, free sulphur, hydrogen sulphide, carbon bisulphide, etc.

Crank Case Dilution

Crank case dilution by C. M. Larson, Sinclair Oil Refining Co., New York, N. Y.

This paper outlined the actual facts of dilution of crank case oil without attempting to delve too deeply into the causes for crank case dilution or remedial measures to correct dilution. Data were gathered from dynomometer laboratory test work of scientific accuracy and also from actual road performance of automobiles. Curves were developed to display the relationship of dilution effect on engine performance. Other curves showed the change of characteristics as the oil becomes diluted as related to consumption and economy of fuel and lubricant, as well as to engine performance. The article referred to two simple devices by the use of which the motorist can determine when his oil has become unfit for further use and may be considered dangerous. These devices constitute a pocket laboratory, and make it possible for the motorist to determine the proper time for changing crank case oil based on the condition of the oil, and not on arbitrary or average mileage.

The effect of crank case dilution, by D. P. Barnard, Fourth Massachusetts Institute of Technonolgy, Cambridge, Mass.

This paper gave the results of a series of car and engine tests in which the rate of wear was estimated from analysis of crank case oils for suspended iron. The results indicate that at dilutions above 10-15 per cent the rate of cylinder and ring wear increase markedly.

Distribution of sulphur in petroleum and its fractions, by A. P. Bjerregaard, Empire Refineries, Inc., Okmulgee, Okla.

Determinations of the sulphur content in a considerable number of American crude petroleums have been made together with determinations of the sulphur content of the fractions from the same crude petroleums. The results are given as percentages in the products analyzed and also in percentages of the sulphur in the original crude, thus showing the per cent distribution of the sulphur in the several fractions into which the crude oil was separated.

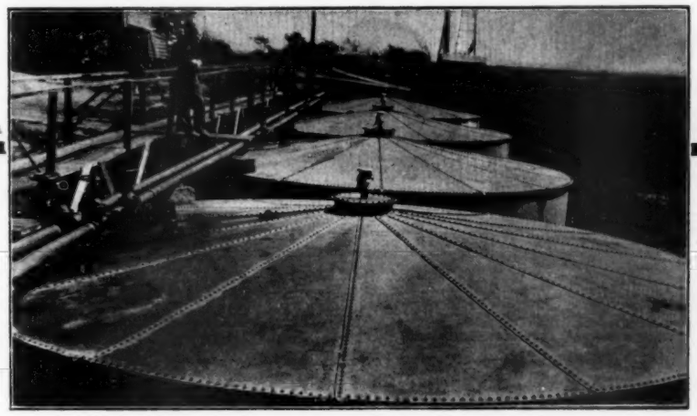
New Refining Method

New suggested method of refining petroleum, by R. H. Brownlee, Pittsburgh, Pa.

The theory is advanced that the refinery of the immediate future will be vastly simplified compared with existing complete refineries. Many existing plants will operate for many years to come but a company building a new plant of present type, in the estimation of the writer, will be making a serious mistake. The new type plant will be primarily a cracking plant. Lubricants will be made from the residue. Lubricants superior to existing grades for internal combustion motors, will be manufactured by polymerization of the unsaturated hydrocarbons from the cracking process.

A comparison of several methods of color measurement with a true color scale, by T. H. Rogers, Standard Oil Co. of Indiana.

The determination of the color of oil by the three methods in common use, namely, the Saybolt chromometer, the Tag-Robinson colorimeter and the Union colorimeter, gives rise to three unscientific methods of expressing colors which have no relation to each other. The method of color measurement developed by Parsons & Wilson possesses considerable refinement over these methods in the manner of making the color determi-



A Battery of AMERICAN Segment Bolted Stock Tanks— 500 Bbls., Low.

Note the Segment Deck, which is as near gas tight as a bolted tank can be.

What—How—Where—When—Why

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How: American Equal Segment Bolted Tanks are most simple and practical in construction and have unusual strength due to the equal and interchangeable segments of top and bottoms, and to the heavy gussets and tie braces which are used. Our 500-bbl. VAPOR PRESSURE BOLTED FLOW TANKS hold 2-lb. pressure, which insures ample gas for all uses. Our storage tanks have stood the most severe tests of service and vapor pressure.

Where: American Vapor Pressure Flow Tanks and Stock Tanks are carried in stock in all of the Mid-Continent oil fields by our representatives.

When: Our tanks are ready for setting on your lease NOW, and they will be set today, if you will just say the word.

Why: They pay for themselves in a very short time by eliminating evaporation losses and holding up the gravity of the oil. You get quick and efficient service, a service that is not only satisfactory for the present, but that KEEPS you well satisfied.

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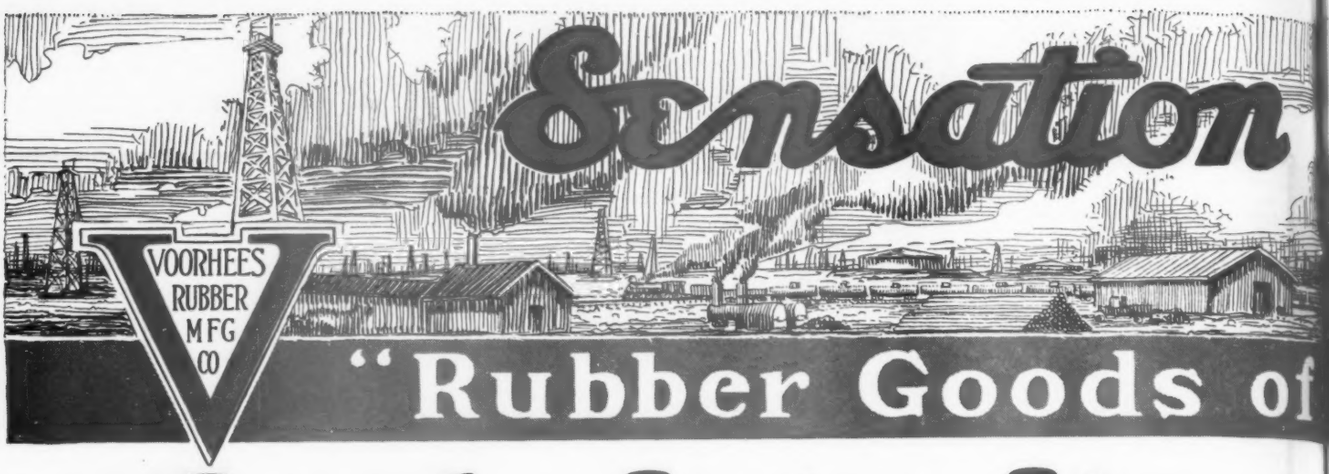
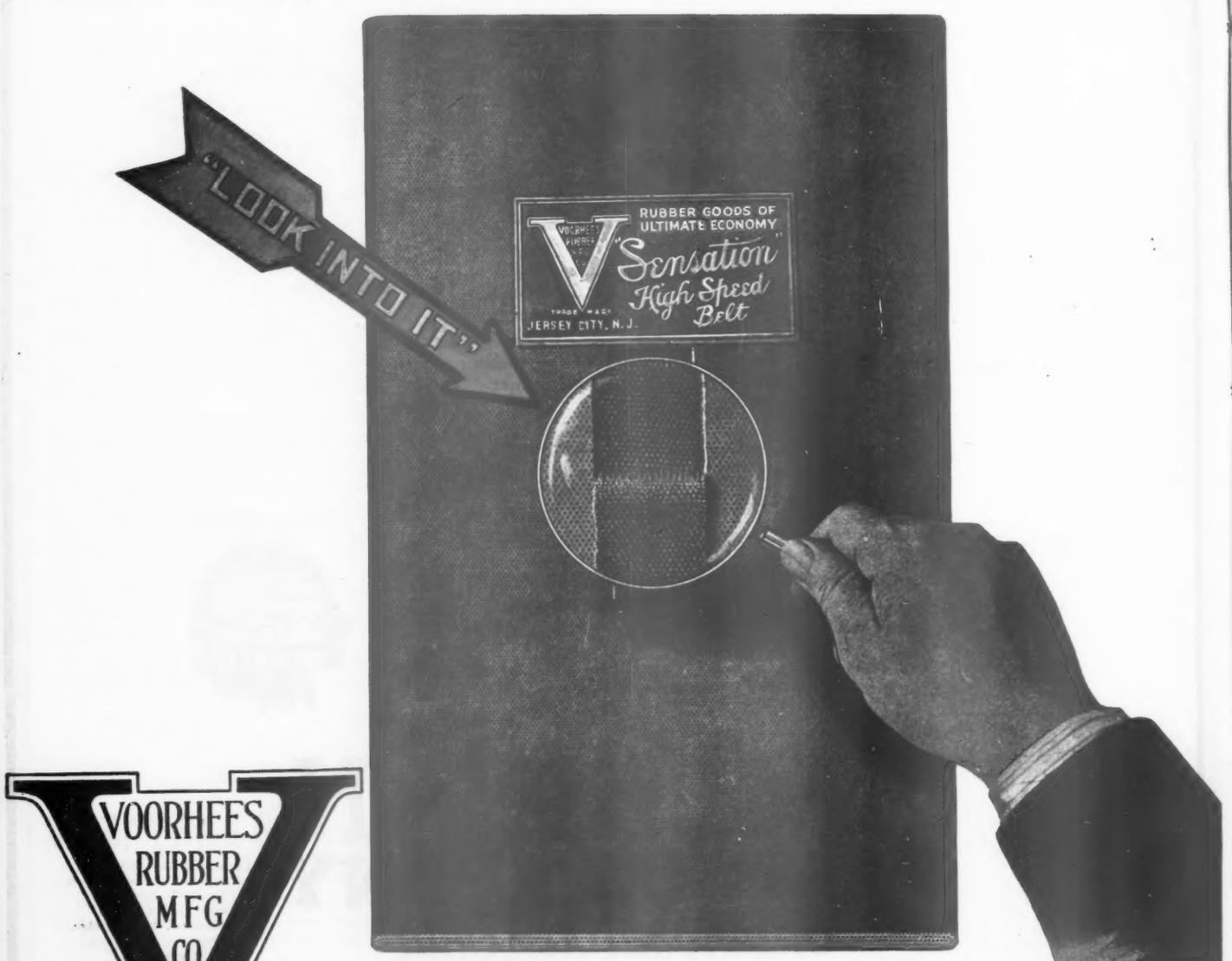


Look Into It



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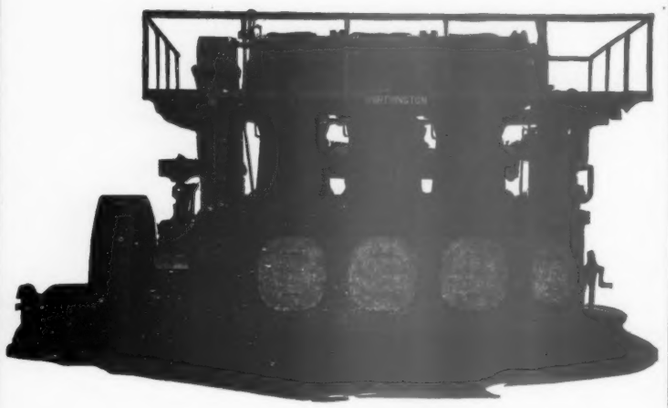

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nation and expresses the results on a true color scale in which the colors are proportional to the amount of coloring matter present and are therefore additive. The colors of a series of oils have been measured by the various methods, from which a chart has been prepared, showing the relations between the several color scales. The advantages of expressing colors on a true color scale for investigational work are discussed, and the use of the conversion chart for calculating the colors of mixtures is explained.

Measuring Viscosity

The measurement of the absolute viscosity of light distillates with the Saybolt Thermo Viscometer, by A. R. Fortsch and R. E. Wilson, Standard Oil Co. of Indiana.

In order to secure reliable data on the absolute viscosities of light liquids, such as gasoline, kerosene, etc., for use in calculating the flow of fluids and the flow of heat, it seemed desirable to calibrate the Saybolt thermo-viscometer in absolute units. Although this instrument is most universally used to measure the viscosity of light liquids, there seems to be no published data as to the relation between the observed time of flow and the true viscosity of the fluid. By measuring both the absolute viscosity and the thermo viscosity of a number of light petroleum fractions, a satisfactory calibration curve was obtained and is presented in this paper. This curve does not apply with accuracy to liquids whose capillary rise is not very similar to that of the light hydrocarbons used in calibrating it. Means are suggested by which the Saybolt thermo viscometer might be changed so as to give reliable readings on all liquids regardless of the capillary rise. On the whole, however, the instrument is not well suited for measuring absolute viscosities except for a limited class of oils of similar surface tension.

The effect of "Anti-Knock" and "Knock Inducing Substances" on the hot wire ignition curves of certain pure fuels, by C. E. Boord and Raymond E. Schaad, Ohio State University, Columbus, Ohio.

When the vapors of certain pure fuels such as toluene, amylacetate and normal-propyl alcohol are brought into contact with an electrically heated platinum wire, the amount of current necessary to get through the wire in order to ignite the explosive vapor falls through a min-point as the richness of the mixture is increased through the explosion interval. The presence of "anti-knock" such as lead petraethyl, selenium diethyl, ethyliodide or aniline increases the amount of current necessary to put through the same wire to explode the vapor of the same fuel. The presence of a "knock inducing material" such as propyl nitrite amylnitrite or nitrobenzene decreases the amount of current necessary to produce an explosion. In other words, the presence of an "anti-knock" in a fuel mixture increases the hot wire ignition temperature while the presence of a knock inducing substance decreases this temperature.

Turbine Oil Deposit

A turbine oil deposit, by A. G. Blakely, chief chemist, Philadelphia & Reading Coal & Iron Co.

This paper described a brown powder deposit out of the water cooling compartment of a Ridgway turbine. It consisted of:

Water	0.5%
Oil	43.3%
Metallic Soap, etc.	50.4%
Asphaltic Matter	2.2%
Insoluble Matter	4.4%

Progress in the chemistry of cracking, by T. A. Boyd, General Motors Research Corp., Dayton, Ohio.

A resume of progress in the chemistry of cracking. Points discussed include (1) Minimizing the amount of oil in the cracking zone. (2) Decreasing the formation of carbon. (3) High pressures to prevent distillation in the high temperature apparatus. (4) By-products from still gases. (5) Treating cracked naphthas. (6) Important problems still to be solved.

Cracking of low temperature coal tar and conversion products, by Jacque C. Morrell and Gustav Egloff.

This paper described experiments covering the cracking of two different low temperature carbonization products. These products were a dry tar, Sp. Gr. 1.068 (Be. Gr. 1.0) and a neutral oil, Sp. Gr. 0.9484 (Be. Gr. 17.7.) Results obtained were very encouraging from a viewpoint of the production of motor fuels.

Present status of the natural gasoline industry, by George A. Burrell, Pittsburgh, Pa.

This paper discussed advances in the art of extracting gasoline from natural gas, the compression, absorption and charcoal processes, the Rafferty stabilizer, treatment of national gasoline, economics of the industry and future trend.

Cracking and Distilling

Thermal relations in cracking and distilling of oil, by Roy Cross, Kansas City Testing Laboratory.

The data given in this paper were the observations in the cracking of oil in the liquid phase under very high pressure. At a pressure of 650 pounds which is the normal operating pressure of the Cross process, there is practically no heat used up in vaporization although the gasoline and gaseous hydrocarbons exist largely in the vapor phase. The temperature of reaction is considerably above the critical temperatures of the hydrocarbons.

The temperatures and pressures of the oil at the various stages are as follows:

		Temp. Deg. F.	Approx. Pressure (lbs.)
1	Charged oil	80	700
2	Oil from heat exchanger reflux coil	324	700
3	Furnace transfer	550	675
4	Oil from furnace	850	650
6	Oil reaction chamber	810	650
7	Synthetic crude to reboiler	710	50
8	Oil from reboiler	670	40
9	Refluxed oil in bubble tower	624	28
10	Oil on tray No. 2	577	28
11	Oil on tray No. 6	539	28
12	Oil on tray No. 15	485	27
13	Oil on tray No. 30	429	26
13a	Vapor above tray No. 30	402	25
14	Vapor outlet from fractionating tower	338	25
15	Residue in vaporizer	632	30
16	Vapor from vaporizer	618	30
17	End point gasoline from condenser	80	15

The above gives the amount of heat consumed in various stages of the process. It is particularly to be noted that in the fractionating tower or bubble operation, at least a 4-degree drop in temperature for each tray is required for good fractionation unless the number of trays is excessive.

In the cracking of oil in the liquid phase at 650 pounds pressure the amount of heat contained by 1 pound of the oil when it issues from the furnace tubes and enters the reaction chamber in excess of that in the charged oil is 426 B. T. U. per pound.

Distribution of this heat in a single cycle when no refluxed or hot oil is returned to the system is as follows based upon each pound of oil charged.

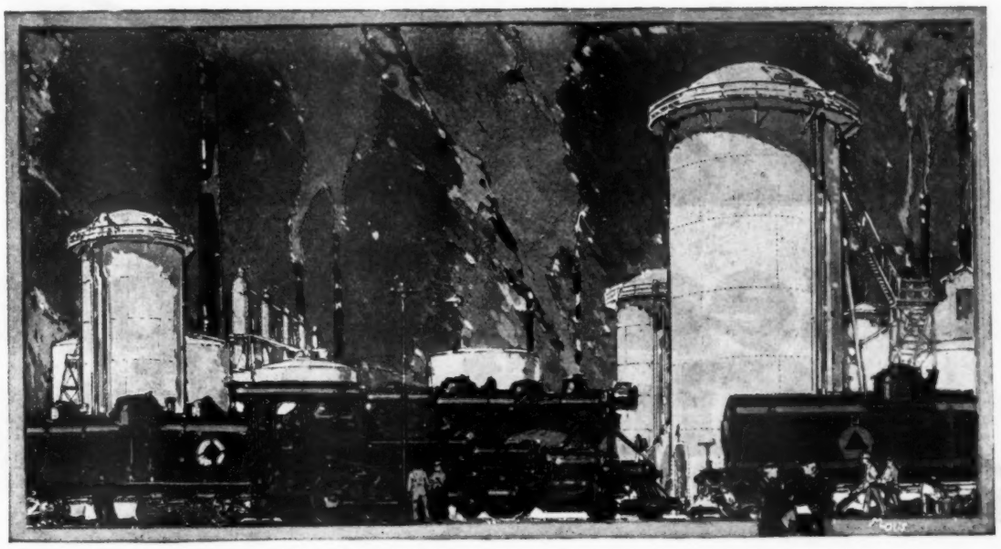
	B.T.U.
0.337 lb. gasoline	88.0
0.567 lb. gas oil recharging stock	191.1
0.056 lb. fuel oil	13.5
0.037 lb. fixed gas	7.0
0.003 lb. carbon	0.4
Heat exchanged into charged oil through reflux coil	117.0
Radiation from reaction chamber and lines	40.0
Total	463.0

Gasoline Air Mixtures

Dew-points of gasoline-air mixtures, by R. E. Wilson and D. P. Barnard.

The cause of the discovery between the dew-points previously reported by Wilson and Barnard and those of W. A. Gruse, has been found to lie in the change in relative volatility of different hydrocarbons with temperature. The values previously given by the writers hold closely for fuels having narrow distillation ranges. For the fuels ordinarily encountered, however, the figures given are too low. Correction of these values by allowing for the change in relative volatility gives results which practically check the observations of Gruse. This method of calculation allows of an estimate of the dew-point from the Engler distillation data of the

(Continued on Page 86)



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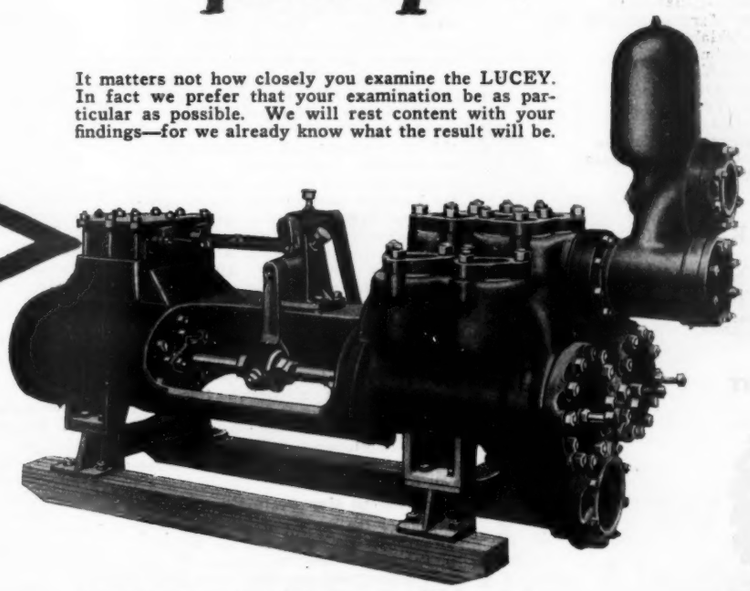
Check it part by part with any pump

It matters not how closely you examine the LUCEY. In fact we prefer that your examination be as particular as possible. We will rest content with your findings—for we already know what the result will be.



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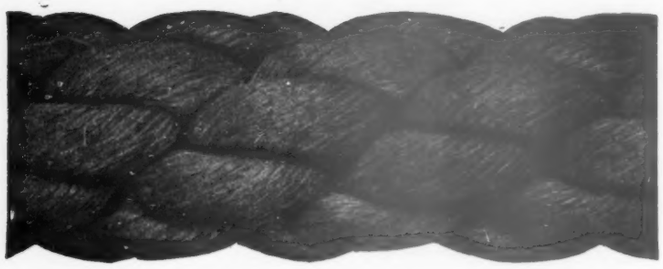

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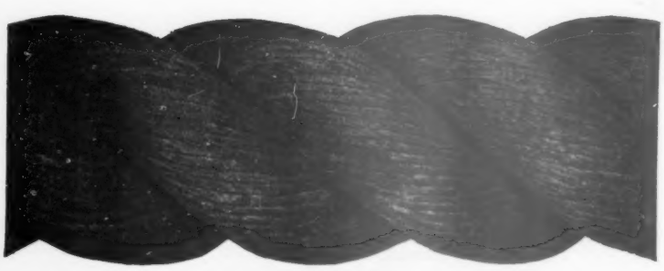

Worthy of Trust

PRODUCERS MAY TURN FROM MEXICO TO VENEZUELA, W. F. BUCKLEY SAYS

NEW YORK, Sept. 6.—Due to the rapid exhaustion of oil in the present Mexican fields, the American companies now face the dilemma of crossing the line that separates their present fields from confiscated territory or withdrawing from Mexico entirely and going to Venezuela for new supplies, according to W. F. Buckley, president of the Pantepec Petroleum Companies, who has just returned from a six months' stay in Venezuela, interviewed by the Journal of Commerce. The American companies are sending a committee to confer with the Mexican Government to reach a satisfactory agreement in the matter, Mr. Buckley added.

That Venezuela is a potential oil producer there is no doubt, he said. The question now is when this oil will be produced and marketed. The oil resources of that country are, with the exception of Mexico, more accessible than those of any other country in Latin America, while in Colombia the first pipe line must be some 400 miles in length, and in Bolivia much longer. In addition, Maracaibo is closer to New York than is Tampico.

"Venezuela's only rival for extensive oil development in Latin America is Mexico. Here are the comparative claims of these two countries to the attention of the oil industry," said Mr. Buckley.

"Titles are secure in Venezuela and insecure in Mexico. Prior to 1917, the land owner in Mexico held title to the oil in the subsoil, just as the land owner does in Oklahoma. With no more authority in law than would vest in a constitutional convention in Oklahoma, Mexico attempted by constitutional enactment in 1917 to confiscate all oil properties in the Republic. Subsequently, however, in negotiations with oil companies and with the American Government, Mexico agreed to except from confiscation the properties belonging to foreign oil companies located within the very narrow limits of the field then under exploitation. Although the American Government accepted this concession, it did not then recede from the position that confiscation must not apply, so far as American citizens were concerned, to the balance of the oil territory in Mexico. Subsequently, the American Government has withdrawn from this position and has practically acknowledged title of the Mexican Government to the subsoil of Mexico outside of the small area now under exploitation by American companies.

American May Go to Venezuela

"Due to the rapid exhaustion of oil in the present Mexican fields, the American companies now face the dilemma of crossing the line that separates their present fields from confiscated territory or withdrawing from Mexico entirely and going to Venezuela for new supplies of oil. Before making a decision, the American companies have resolved to make a last effort to reach a satisfactory agreement with the Mexican Government, and are now sending a committee to Mexico City for this purpose.

"The difficulties faced by American companies in Mexico are not generally appreciated. In the first place, a Government that yesterday confiscated the oil in the subsoil might conceivably tomorrow confiscate the oil above ground. Also an anomalous situation might arise from the return to power in Mexico of a Government holding the same conception of the sanctity of property rights that exist in the United States and Venezuela. The Supreme Court of such a Government would undoubtedly take the position that title to the subsoil remained in the land owners, since the Constitution of 1917 would not be applied retroactively to divest the rightful owners of title.

"This decision would be amply justified not only under the laws of Mexico and in international law, but by the position taken by the Wilson Administration and by the Harding-Coolidge Administration up to 1923. In this event, the oil companies would find themselves in a predicament in which they would have an investment of millions of dollars in properties based on titles not acquired from the rightful owners, but from a Government having no title. Under the circumstances, American companies could expect no relief.

"On the other hand, Mexico has the advantage of an outlet for its oil, since American companies have invested in that country over $100,000,000 in pipe lines and sea loading terminals, which would enable them to exploit new Mexican oil fields in Venezuela, and which investments they must scrap if they are to entirely abandon the Mexican Fields.

Titles Secure in Venezuela

"Venezuela is weak where Mexico is strong, and strong where Mexico is weak. While title to oil is secure in Venezuela, the outlet to Venezuelan oil has not yet been solved, nor have the American companies invested large sums in that country in pipe lines and oil terminals. Venezuela has a stable Government that respects and makes others respect property rights, which are as safe there as in any other country in the world. Its bonds are on a par with American bonds, thereby reflecting the high regard in which that Government and that country are held throughout the world. The Venezuelan oil laws are the fairest and most liberal in Latin America. Further, the execution of the laws in Venezuela is in the hands of a class of men so different from Mexican officials that comparison is impossible. In Venezuela oil companies have but to get the oil and take it out. In Mexico they must first find the oil, and then endeavor to keep title to it.

"It is undoubtedly to the economic interest of oil companies to defer development in Venezuela until after oil in Mexico is exhausted. It is for this reason that these companies are limiting their efforts in Venezuela to the acquisition of oil properties for purpose of exploitation in the future on the well known oil theory that "underground storage is the cheapest storage," and to drilling here and there with the idea of locating valuable territory so that exploitation may take place quickly when the markets of the world justify it. Consequently, American oil companies have as yet not given serious consideration to a solution of the problem of transportating oil to seaboard from the basin of Lake Maracaibo, into which ocean going tankers cannot penetrate because of the shallowness of the bar. Indeed, in drilling for oil alone, American companies are spending 10 times as much money in Mexico as in Venezuela.

Producers Looking Ahead

"The lives of oil companies are long ones and a company is justified in looking ahead many years for its reserve supplies. If no competitor should begin to export Venezuelan oil, the American oil companies will within 10 or 15 years find the oil in Venezuela in exactly the same location it is in today with a price in New York possibly $5 a barrel instead of $2.

"Mexico and Venezuela cannot be dissociated in the oil game, and Venezuelan development must necessarily await the outcome of negotiations between the American oil companies and the Mexican Government, in the course of which, no doubt, the alterative of removing operations to Venezuela will be duly and forcibly advanced as an argument by the American oil companies.

"When one is asked, 'is there oil in Venezuela in large quantities?' the answer must be 'yes' emphatically. But, if one is asked the further question, 'When will Venezuela begin producing and exporting from 100,000 to 500,000 barrels a day?' he must refer his interviewer to the eight or 10 large American oil companies which are the umpires of this situation and can alone answer the question."

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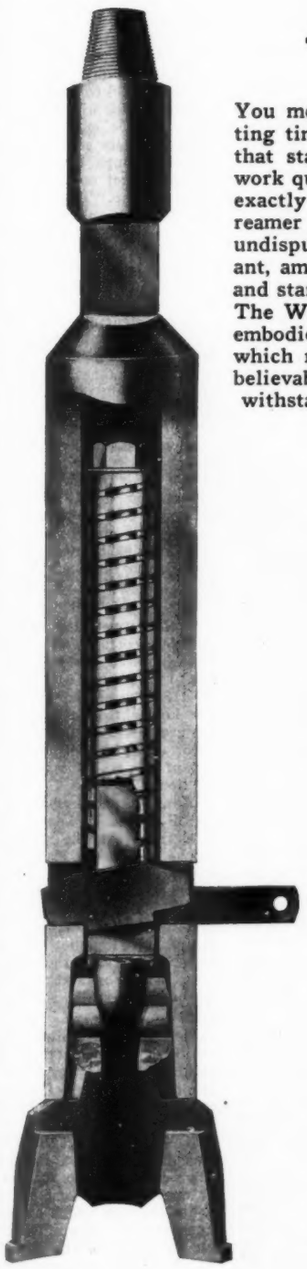

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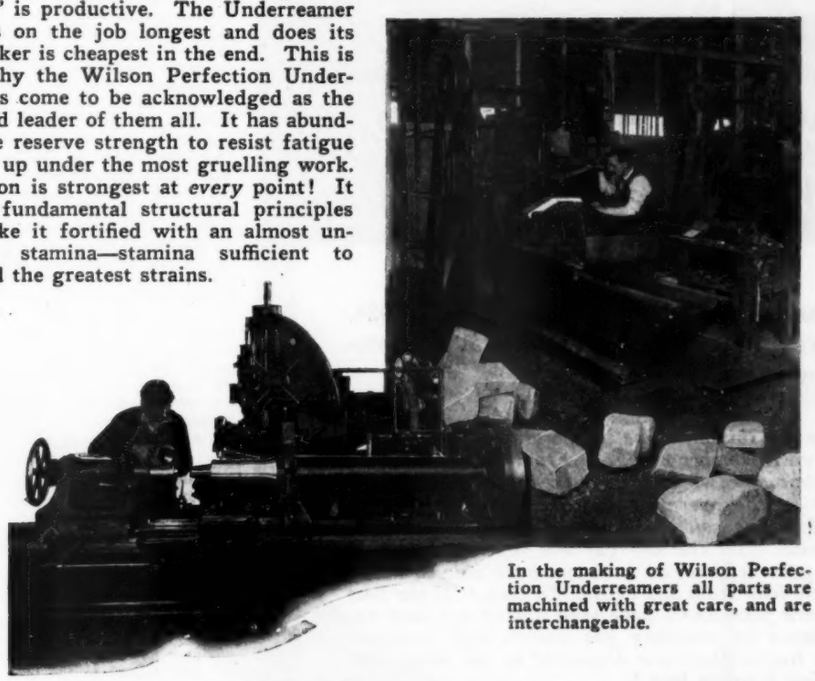

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PRESSURE, TEMPERATURE AND AIR IN BURNING OIL EFFICIENTLY

By A. L. Wernert*

No installation employing mechanical atomization can be successfully operated unless the oil is delivered at constant uniform pressure at each burner and an even temperature at each burner, together with a constant and uniform supply of air at each burner. By carrying the oil pressure, oil temperature and air supply constant at each individual burner, we reach a balance condition. Then, and only then, will each individual do the same amount of work.

Various questions on operating procedure have been asked by students at the Todd Free School. Among the most important were those given here together with the answers.

Question: What is the proper oil pressure to carry at the burners?

Answer: Find out from the manufacturer of your particular type of mechanical burner the proper pressure to carry on your system with their burner in order to get good atomization. Once this pressure is determined, maintain it constantly, regardless of load conditions.

Question: What is the proper temperature to which oil should be heated in order to get good atomization?

Answer: The proper temperature is that temperature at the burners which will reduce the viscosity of the oil to 8 degrees on the Engler scale, or 280 seconds on the Saybolt scale. In the past, engineers have depended entirely too much on the gravity of an oil to determine the proper oil temperature. Gravity readings practically give the engineer no information about the oil except the weight. When an engineer determines the temperature at which to heat the fuel to obtain good atomization by means of the weight, he is only guessing at it. Oils of the same gravity, but differing in viscosity, require different temperatures; the higher the viscosity the higher the temperature necessary to atomize it properly.

Testing Fuel Oils

A short time ago I had occasion to test fuel oil from four different plants for their specifications. These four fuel oils had the same Baume gravity, 13 degrees at 60 degrees Fahrenheit. Two of these oils burned without much trouble, the third gave a little trouble, while the fourth, when sprayed on a wood fire, put out the fire. This illustration is given to show why the gravity does not give the engineer any information about the fuel oil with regard to the proper atomizing temperature. In the past, engineers usually determine by experiment the proper temperature at which to heat fuel oil. When carrying too low a temperature on the fuel oil, it will not atomize properly, thus causing the burners to smoke heavily. No quantity of excess air will clear away the smoke from this cause, and the only remedy is to raise the temperature of the fuel. When atomization is poor, it will cause a carbon deposit when the oil comes in contact with the heating surface before complete combustion takes place. With high temperatures it is difficult to get the required amount of oil through the burners, as heat increases the volume of oil and consequently decreases the weight of the oil passing into the furnace. In other words, while keeping the oil pressure constant and gradually increasing the temperature, a point is reached where the greatest amount of oil by weight will flow into the furnace. This is called the "critical point." Beyond this temperature continued heating of the oil increases its volume and actually results in decreasing the capacity of the burner. Excessive heating causes vibration of the burner, tends to break down the oil in the pipe line and causes carbonization at the burner tips.

Authorities on mechanical oil burning have come to the conclusion that all fuel oils have about the same characteristics and can be burned with the same vane opening, air pressure or draft and oil pressures, when heated to that temperature which will reduce the viscosity of the oil to 280 seconds Saybolt. This is a decided advantage, since a satisfactory method of operating, once determined for any given load, can thereafter be used, although different oil be burned. Heating the oil above this temperature in no way improves the efficiency of evaporation and results in a direct waste of heat. This fact has been established by different authorities, and is the one most generally disregarded in practice.

Burning Oil Efficiently

Question: How can I cut down fuel consumption?

Answer: Although the oil may be delivered at a constant pressure and be finely atomized, it cannot be burned economically and completely unless the spray is mixed with air in correct proportions. This mixture must enter the furnace to form a perfect gas. The air must be delivered through the vanes of the register and must not enter the furnace to form a perfect gas. The air must be delivered through the vanes of the register and must not enter the furnace in any other way. The vanes of the register are adjustable so that it is possible to increase or decrease the velocity of the entering air.

If sufficient air is supplied, combustion is complete and carbon monoxide (CO) is formed. Since this reaction does not liberate as much heat as will the formation of carbon dioxide (CO_2) the furnace temperature is low. Black smoke, carbon deposits on the heating surfaces and vibration appear. Too much excess air results in lowering the evaporative efficiency of the boiler. If more air is supplied than the carbon in the fuel can absorb, the excess is held in suspension and is of no value, as it absorbs heat from the carbon that is being burned, detracting just that much from the heat that would be given off to the boiler. A sign of excess air is a clear stack or dense white smoke.

If the proper amount of air is supplied, complete combustion is obtained; that is, the highest percentage of carbon dioxide (CO_2) without any carbon monoxide (CO). The higher the percentage of CO_2 the higher the furnace temperature and the greater the number of heat units liberated. A light brownish gray haze at the top of the stack is a sign of good combustion.

Many an engineer has said that he has no oil losses, he has no ash pit loss, he loses none at the pumps, there is no smoke, so where else does the heat go except into steam? He thinks he is getting maximum efficiency. When questioned about stack temperature and carbon dioxide (CO_2), he claims his stack temperature cannot be much different from that in any other plant, and furthermore, he has no stack thermometer to tell him what it really is. As for CO_2, what is that?

In economical boiler practice there are two knds of efficiency, one known as combustion efficiency and the other as absorption efficiency. Combustion efficiency pertains to the proper burning of oil with the least amount of air to produce the greatest percentage of CO_2. To obtain such fine results, a flame or rich yellow color must fill the furnace without gaps or open spaces along the sides or underneath through which excess air may pass unconsumed. The stack theromometer is an indication of the absorption efficiency of the bailer, and temperature should be logged from day to day, all charges noted and the cause of fluctuations investigated by the man in charge. Naturally, the flue gas will rise with dirty tubes, and some engineers have the tubes blown every day, whether they need it or not. Another cause of incerased stack temperature is excess air. As this excess air is cut down, the flue temperature will drop in the same ratio. This is something that all engineers do not realize, and it is suggested that they make the experiment.

*From an article in Power.

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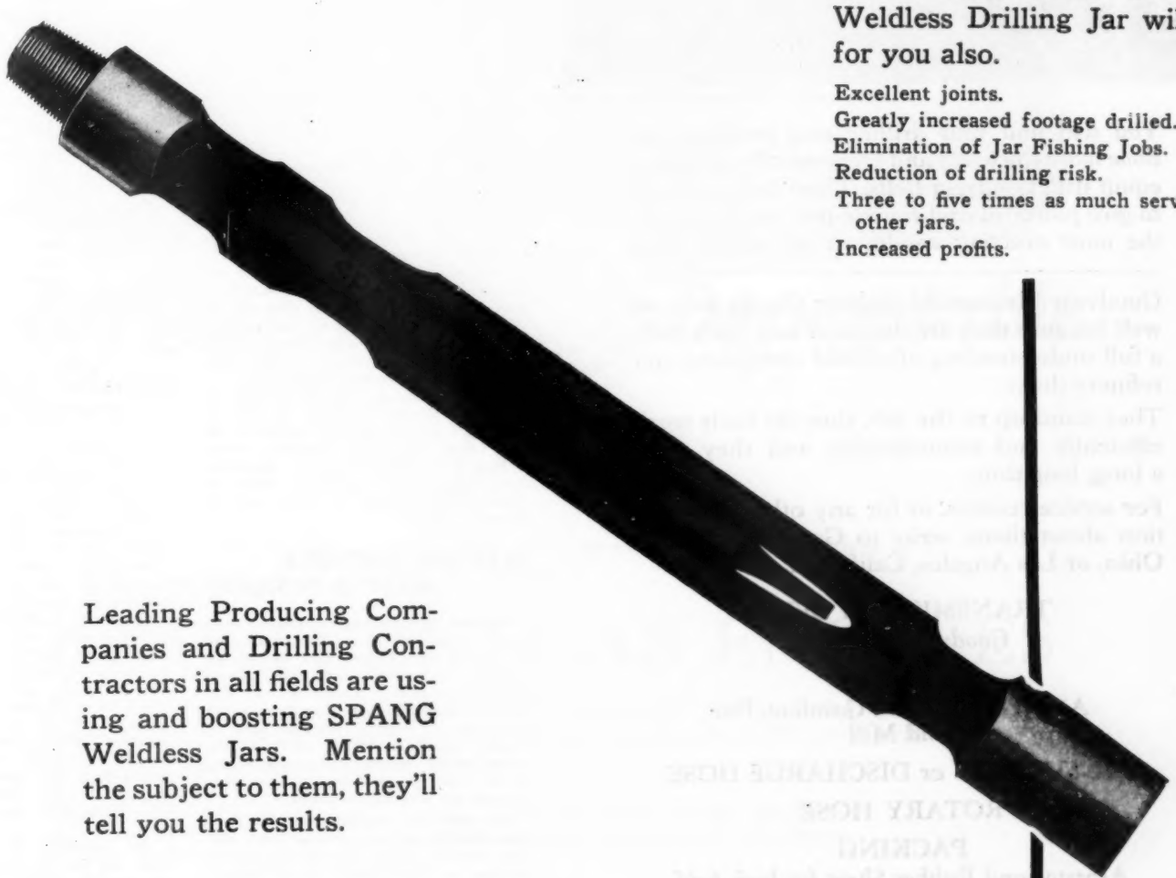

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CLIMAX ENGINEERING BUYS LAMB COMPANY

The Climax Engineering Co., of Clinton, Iowa, has succeeded the Lamb Boat & Engine Co., which was at one time one of the largest manufacturers of marine engines in the United States. Following the death of James Dwight Lamb and on account of the rapid development of the tractor industry of that period, the new owners organized under the name of "Climax Engineering Co.," greatly enlarged the plant facilities and equipment, and began the manufacture of gasoline engines for tractor and general power purposes.

At the present time, industrial applications of Climax engines are used as standard equipment by approximately two-thirds of the manufacturers of contractors and industrial machinery requiring engines of the capacities produced by the Climax company.

In spite of the fact that these engines are so ruggedly built that repair part costs average less than 80 cents per month, per engine, and some engines have been in service for seven or eight years, the company carries supplies of repair parts at the several centrally located points for the convenience of its customers.

The physical equipment of the Climax company comprises complete machine shops, foundry, stock warehouses, assembling and general office buildings, etc. The main plant, covers an entire city block. The Climax foundry, covering half a city block, nearby, is completely equipped with every modern device to insure speedy and reliable production. Since the company manufactures all parts of its engines, with the exception of carburetors and electrical equipment, the quality can at all times be controlled and kept up to the high standard established several years ago.

The Climax line of "Trustworthy" engines consists of two models of four-cylinder engines, one of which, the "K" series, has 5 inch bore by 6½ inch stroke, while the "T" series has 5½ inch bore by 7 inch stroke. The "R" series of six-cylinder engines with 5½ inch bore by 7 inch stroke has removable sleeves and liners in cylinders. These engines will operate on either gasoline or kerosene and the horsepowers developed ranged from 30 to 120, at moderate speeds.

To supplement its line of gasoline engines, the Climax company is also developing a line of crude oil engines of the true Diesel type, with capacity ratings of from 50 to 400 horsepower, depending upon the number of cylinders. More detailed announcements of these will be given in the fall.

ELECTRIC PORTABLE HOIST IS DESIGNED

Sullivan Turbinair portable hoists, both single and double drum, with compressed air motors, have proven very popular for mining, contracting and miscellaneous industrial service. Under certain conditions, however, there has been a demand for an electric portable hoist of similar character which could be employed when electric wires were strung to the work to be done, or when compressed air was not available.

To meet this requirement, the Sullivan single drum and double drum electric portable hoists have been designed, and are now in successful use in different parts of the country. They are similar in appearance to the compressed air machine. As in the case of the air hoist, the motor of the electric machine is contained entirely within the drum in both cases, which makes for compactness, simplicity and ease of handling.

In the single drum hoist, the motor is supported at one end of the frame or base, and supplies power, through reduction gears, to the hoisting drum, which is 11⅛ inches in diameter by 8¼ inches long. This relatively large drum diameter reduces strain and wear on the hoisting rope, which is 5-16 inch wire cable. The drum holds 500 feet of cable.

TWO MILLION ROYALTY TO LONG BEACH, CAL.

LOS ANGELES, Cal., Sept. 6.—E. H. Ogier, city oil engineer of Long Beach, places the total revenues accruing to the City of Long Beach since the leasing of municipal oil lands in the Long Beach Field in excess of $2,000,000. For the three fiscal years, ending June 30, 1924, the total revenue derived by the city from municipal oil lands amounted to $1,780,596.36. Since July 30 of the current year an additional $250,000 has been paid into the city treasury. Estimates for the fiscal year 1924-1925 are placed at $1,000,000.

The first lease on municipal owned land was negotiated on August 13, 1921 with the A. T. Jergins Syndicate. This lease, known as the Jergins Municipal lease, has proven the most productive and remunerative to the city of any of its properties. The contract specified that 14 wells were to be drilled, and a recent completion by the lessee completed the contract. The Jergins Syndicate is, however, drilling additional holes and will undoubtedly continue to do so as long as the lease is commercially profitable. The city leased this property on very advantageous terms, the 40 per cent royalty basis netting the city $1,018,927.19 for the fiscal year ending June 30, last, and a total revenue of $1,444,643.14 since the signing of the contract. Another piece of city property is under lease to the C. R. Ramsey interests upon which are located six wells. This lease has paid the city during the last fiscal years $206,701.14 and a grand total of $273,279.87 to date.

Another of the city's properties, a 2-acre piece included in the Shell Oil Co.'s Cherry Hill community lease, has paid to the city treasurer during the last fiscal lear $14,304.11. The total revenue accruing to the city since the signing of the lease on this property is placed at $71,673.35. The property is at present yielding in excess of $3,000 a month to the city. In addition to oil revenue, the city is receiving about $5,000 a month from the Lomita Gasoline Co., and about $4,000 a month from a gasoline absorption plant on the hill representing royalties on casinghead gasoline derived from gas produced on city-owned properties.

GASOLINE PROBLEMS DISCUSSED BY SOCIETY

(Continued from Page 78)

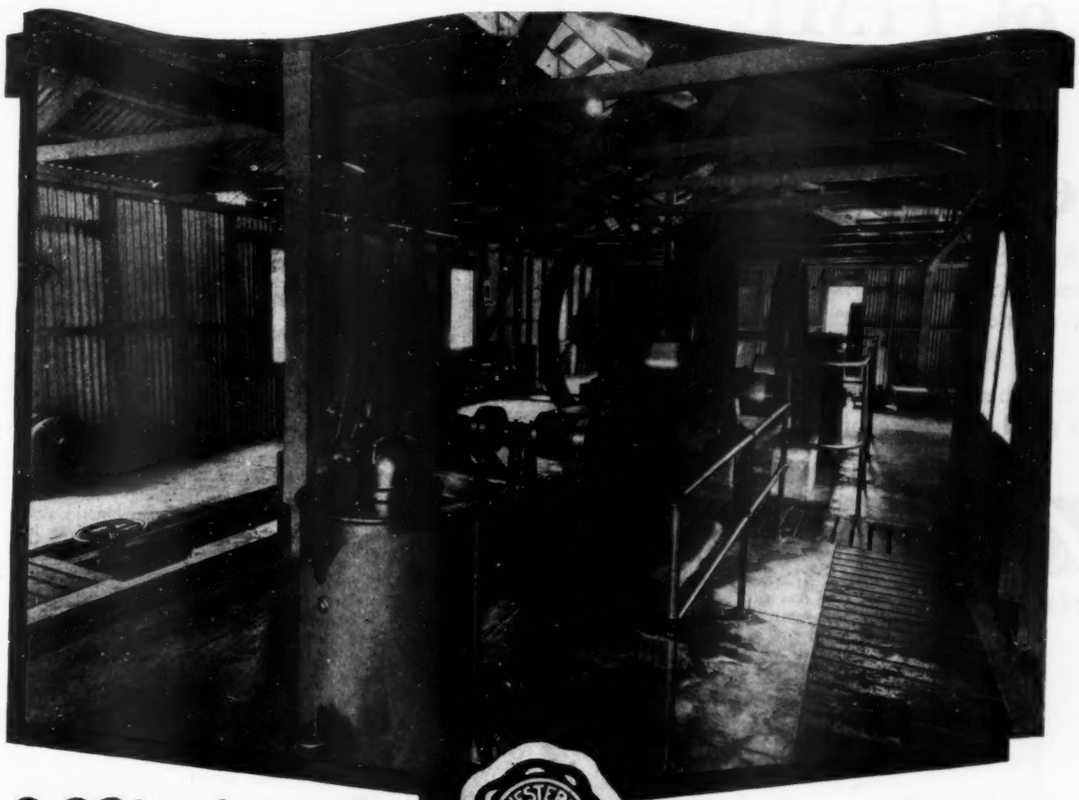
fuel. Such an estimate is probably good to within 5 degrees C.

Dilute sulphuric acid treatment of cracked distillate, by Gustav Egloff, Director Research Laboratories, Universal Oil Products Co., Chicago, Ill.

Reporting a series of tests made using 10 to 95 per cent sulphuric acid concentrations on pressure distillate oil from cracking of California gas oil which yielded a water white, sweet odor, and doctor sweet gasoline when using a concentration of 60-70 per cent sulphuric acid solution. All tests were conducted using the same quantity of actual sulphuric acid per unit volume of cracked distillate. Wwith the exception of the two concentrations noted, the gasoline ranged from deep purplish red in color to purplish pink, with intermediate colors of light gold, light yellow and light pink.

The cracking of topped Louisiana crude and fuel oil, by Jacque C. Morrell and Gustav Egloff, Research Laboratories, Universal Oil Products Co., Chicago, Ill.

The Dubbs process has cracked, continuously, with one passage through the apparatus 969 bbls. of topped Louisiana crude oil into 41.59 per cent gasoline; 15.9 per cent gas oil; 34.12 residue fuel oil; 7.5 tons of dry coke and 163,000 feet of uncondensible gas. The process has also cracked continuously with the passage through the apparatus 2,007 bbls. of Louisiana fuel oil into 36.75 per cent gasoline; 12.04 per cent gas oil; 45.62 residue fuel oil; 11.8 tons of dry coke and 336,000 feet of uncondensible gas.



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The following are only two of many instances of the kind of service performed by the "TEX."

On December 17th, 1923, a "TEX" Barrel was installed in a 26 barrel well which had regularly been pulled four times weekly. On July 12, 1924, the date of last report, the barrel was still in operation, having saved probably 100 rod jobs.

On October 16, 1923, a "TEX" Barrel was installed in a well which had caused endless trouble, rods being pulled after every pumping. On July 10, 1924, the date of last report, the barrel was still functioning perfectly and had paid for itself many times.

One operator said ,"You don't have to work to sell these barrels. Let a man try one and his lease will soon be all "TEX."

The saving of time and money with a "TEX" by the month and by the year of service deserves your serious consideration.

Bradford Motor Works

Bradford, Pa.

Branch Factory & Warehouse, Tulsa, Oklahoma

CALIFORNIA'S PART IN PRESENT SITUATION

(Continued from Page 20)

California, therefore, which refined practically no crude oil except that which she produced, recovered an average of only 20 per cent gasoline from the total crude run to stills. This fact only emphasizes the outstanding difference between the crude produced in the San Joaquin Valley and that from the new Los Angeles Basin fields.

It also emphasizes the tremendous industrial and economic significance of the 1923 development as compared with the previous production.

The Santa Maria-Lompoc, the Summerland and the Ventura-Newhall Fields lie on or near the coast north of the rather clearly defined area now referred to as the Los Angeles Basin.

Santa Maria-Lompoc and Summerland are slowly declining while Venture-Newhall is slowly increasing its production. The 1924 output from these three distinct fields will probably not exceed 6,000,000 barrels.

Salt Lake, Whittier and Fullerton are slowly declining and present indications are that they will produce an aggregate of about 5,000,000 barrels in 1924.

Coyote hit its peak in 1918 with 12,600,000 barrels since which there has been a steady decline, with an abnormal drop in 1923. The field will probably produce 3,500,000 barrels this year.

Montebello hit its peak in 1919 with 12,000,000 barrels and declined steadily until this year during which it will probably produce a little over 6,000,000 barrels.

Richfield's 'best years were 1921-22, and the field will probably produce about 4,500,000 barrels this year.

Torrance and Dominguez

Present development indicates that Torrance will produce about 19,000,000 barrels this year.

With a production of almost 1,000,000 barrels the first half of this year, and an average production July 1 of 9,500 barrels and August 15 of 23,000 barrels a day, the new Dominguez Field seems good for about 5,000,000 barrels in 1924.

The first half of this year Huntington Beach produced about 10,000,000 barrels. July 1, it was producing 46,000 barrels—August 15 it wns producing 42,000 barrels, hence the field looks good for about 17,000,000 barrels in 1924.

The first six months of 1924 Santa Fe Springs produced a little more than 16,000,000 barrels—July 1 it was producing 61,000 barrels a day and August 15 about 57,000 barrels a day. The production today is slightly on the increase and if the field about "holds its own" for the next few months it will produce close to 26,000,000 barrels in 1924.

The first half of this year Long Beach produced over 34,000,000 barrels. July 1 it was producing slightly less than 160,000 bbls. a day.

August 15 it was producing about 151,000 bbls. a day. If this rate of decline holds for the remainder of the year the field will produce around 62,000,000 bbls.

Estimate by Fields

Assembling the estimates for the different fields for 1924 we have—

	Bbls.
San Joaquin Valley	70,000,000
Coastal fields	6,000,000
Salt Lake, Whittier and Fullerton	5,000,000
Coyote	3,500,000
Montebello	6,000,000
Richfield	4,500,000
Torrance	19,000,000
Dominguez	5,000,000
Huntington Beach	17,000,000
Santa Fe Springs	26,000,000
Long Beach	62,000,000
Total	226,000,000

The first half of 1924 California produced 118,000,000 bbls. of oil. The estimate of 108,000,000 bbls. for the last half of the year is very probably conservative—and with the production curve almost flat at the present time, with Torrance good for probably 19,000,000 bbls. and Dominguez for 5,000,000 it looks as if the new production might come in fast enough to almost offset the decline. It is probable that during the last half of 1924 California will produce more than 108,000,000 bbls.—rather than less.

The San Joaquin Valley has been one of the most consistent, as well as one of the largest oil fields in the United States—and as there are rumors of a new field in this area we can reasonably dismiss all thought of any substantial decline in San Joaquin Valley production—for the present.

Prior to the last few years California had not produced very much high gravity oil—and how the proportion between light and heavy oil has varied during the last five years is clearly shown by the following tabulation:

Proportion in Gravities

Year—	Heavy	Light
1919	63,000,000	38,000,000
1920	67,000,000	38,000,000
1921	71,000,000	44,000,000
1922	63,000,000	76,000,000
1923	52,000,000	211,000,000
*1924	70,000,000	156,000,000

*Estimated.

Present indications are that, at least as far as 1924 is concerned—and well into 1925, and possibly farther—California's flood of light oil has passed its peak, and that during 1924 she will produce as much heavy oil as she has produced during any one of the last six years.

It is conceded that, as used in this article, the broad classification of California oils into low gravity and high gravity, along geographic lines, is not strictly accurate, as some of the heavy oil fields also produce light oil, and vice versa, as pointed out herein—but the general grouping is sufficiently accurate to illustrate the general situation, and especially the significance of the recent increase in the production of high gravity oil, as well as its present decline.

Decline in Light Oil

The estimated decline, in 1924, of some 55,000,000 bbls. in California's production of light oil will afford some measure of relief from the very serious situation that prevailed in 1923.

During 1919-20-21 roughly one-third of the California crude was light oil. In 1922 a little more than half was light oil. In 1923 there was about four times as much light oil produced as there was heavy oil. And present indications are that in 1924 about two and one-half times as much light oil will be produced as there will be of heavy oil.

The decline in the Los Angeles Basin fields is coming much slower than was generally predicted last year—and probably the most reassuring thing in the entire California situation is the fact that, for the present at least, the pendulum of light oil production seems to have started to swing in the other direction.

SCIENTIST DOUBTFUL OF OIL IN ALBERTA

CHATHAM, Ont., Sept. 6.—In a statement made public recently, Dr. J. W. Gregory, professor of geology at the University of Glasgow, expresses doubt as to the prospects for successful oil development in Alberta. Doctor Gregory has conducted researches in oil fields and tar sands in many parts of the world, and is a recognized authority on petroleum geology.

"The prospects for successful oil working in the Alberta Field are not hopeful," he states. "Geological evidence is not in favor of the extension into the province of the beds which are being worked successfully to the south."

In discussing the prospect of the extension northward into Alberta of the Montana Field, Professor Gregory stated that there were lacking in the Alberta strata the particular type of granite intrusions which are responsible for the appearance of oil in beds of shale.

"The tar sands themselves may be a signal that leakage has taken place from former reservoirs and that some of the valuable light fractions have evaporated, leaving the poorer bitumen," the geologist stated, in discouraging too sanguine hopes of a producing Alberta Field.

The tar sands and such limited deposits as may exist are, however, in Professor Gregory's opinion, a valuable asset. When oil prices advance it will be possible to refine the tars for what light liquids are available and to compete successfully with other sources.

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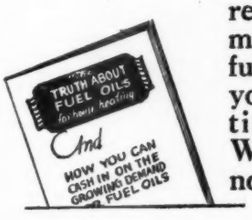

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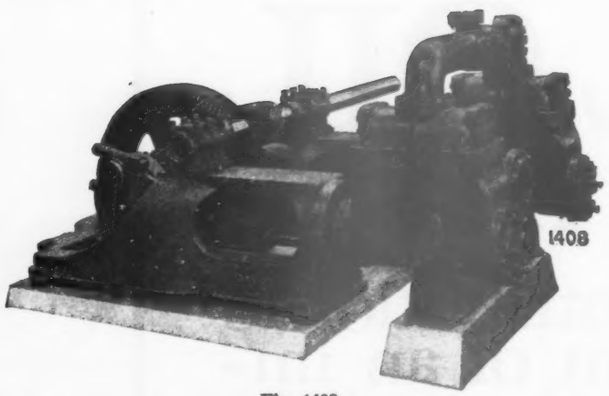

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Franco-German Oil Combine Is Reported Winding Up Affairs

It is reported from Zurich by the London "Financial News" that the International Petroleum Union, which is a holding company, established in 1921, with a nominal capital of 210.000,000f., will be wound up, owing to the lack of capital required for the maintenance of oil companies controlled by the Union. This holding company was created by the Deutsche Erdoel A. G., and by the Societe des Petroles de Dabrowa, and was an attempt to establish cooperation between French and German oil interests. The amount of ordinary shares issued was 150,000,000f., and preference shares with higher voting rights have been issued to the amount of 7,500.000f. The company acquired more than three-quarters of the share capital of both promoting companies, and took important participation in the "Astra Argentina" and other overseas oil enterprises. Later, its participation in the Deutsche Erdoel A. G. was increased to 90 per cent, and it established relations with another German enterprise, the Duetsche Schachtbau A. G. The first business year was unsatisfactory, and the collapse of European exchanges made the work of the company very difficult.

It was decided to reduce the capital and to withdraw from the company its holding in Deutsche Erodel and Dabrowa shares, in exchange for which the two founder companies abandoned a corresponding amount of shares held in the Petroleum Union. In spite of this reorganization, the result of the following business year was also unsatisfactory, and in April last the chairman announced that the company would have to be liquidated. A few days ago the decision was definitely announced, and a scheme of winding-up has been elaborated.

As it would be impossible to sell the remaining holdings of the Petroleum Union without substantial losses, the Deutsche Erdoel A. G. and the Societe des Petroles de Dabrowa have decided to buy them. They also declared themselves prepared to renounce their holdings of 3,000,000f. preference shares.

L'Union Internationale des Petroles (to give it its official name in French) has a formidable list of directors numbering no fewer than 25. Its offices are at 69, Stampfenbachstrasse, Zurich, and official particulars this year gave the following:

Incorporated.—March 1, 1921, in Zurich. The company has acquired oil properties in the Argentine and Mexico, and is interested in oil-producing companies, including Soc. Anon. Continentale des Petroles Vaduz; A. G. fur Chemische Industrie G.m.b.H., Berlin; Austria, Co. Argentina de Petroleo, S. A.; Industrias Argentinas, S. A.; Credito Petrolera, S. A.; Tampico; Brings y Lufft, Tampico, and Picher San Cristobal y Cia. Tampico.

Capital—Francs (Swiss) 28,750.000, in 25,000,000 fes. A shares and 3,750,-000 fes. B. shares. Capital reduced from fes. 150,000,000 in January, 1923.

Accounts.—For year ended June 30, 1922, submitted in Zurich, 1924, showed a loss of 8,235,291 fes. carried forward; cash 3,331 fes., investments 22,525,475 fes., debtors 5,661,270 fes.; creditors 7,676,654 fes.

MANUFACTURE SCHOOL HELPS DISTRIBUTORS

For years manufacturers have recognized the value of bringing their own salesmen to the home office or factory for a few days' visit and conference each year. Sales conferences and "sales schools" for members of the sales staff are now common practice. Also, where a manufacturer's product is marketed through jobbers or distributors, many such manufacturers have realized the money value of keeping the distributors' sales staff fully informed regarding changes, talking points or developments made in their products. The Link-Belt Co., of Indianapolis has adopted a new plan of bringing their distributor's key men to their factory. Here these men may see the products in process of manufacture, listen to prearranged lectures, and become more fully acquainted with general manufacturing procedure, policy and personnel. The Link-Belt company allows each distributor to select the salesmen for attendance at this "School On Manufacture," the Link-Belt company paying all expenses incident to the three-day visit, except the value of that salesman's time.

On August 25-6-7, the Link-Belt Co. held such a school at their Ewart works in Indianapolis, under the direct supervision of George Torrence, sales manager. Mr. Torrence was assisted by various department heads from the two Indianapolis plants, S. L. Haines of Philadelphia works and Walter Ostrand from the Chicago plant.

Those in attendance represented 14 distributors, scattered from Maine to Texas who specialized in almost every industry. These 21 men toured the factories, witnessed the many processes of manufacture, listened to lectures and talks, stood "round-table" quizzes on subjects of interest and learned in a general way of Link-Belt policies.

RUSSIA USING TREATY FOR OIL ADVANTAGE

"The Anglo-Russian treaty puts back the understanding between foreign oil payments and the Soviet Government at least two years," an official of the Shell company is quoted in London. "When we assert our claims now the Soviet people will say that they prefer to do business with their friends, the British Government, and when we offer them a loan in exchange for return of our own property, they will say that they can get the money from the British taxpayer through the Government much cheaper. The treaty is rubbish and will only hinder the return to normal business relations between the two countries."

The negotiations between the Soviet Government officials and Shell and Standard carried on in Paris in the early summer reached no conclusion, the report says, adding that the Shell and Standard agreed to do business together with a Soviet Government in order to block Soviet efforts to bid them off one against the other. The Soviet dragged the conference out in the hope of breaking the united front against them. Finally no result was reached.

Shell and Standard, however, this London report says, have decided to keep to their agreement of keeping together as regards the Soviet Government. High Soviet officials say there is widespread fear in their communistic circles of big concerns like Shell and Standard. They admit that despite nationalized trade in the short period of two years 80 per cent of the business had already got back into private hands. They foresee that they will have to give private initiative a chance to restore this or that industry, but look upon their nationalized oil fields as the one big achievement in national ownership. They regard it as successful merely because it has produced something of value.

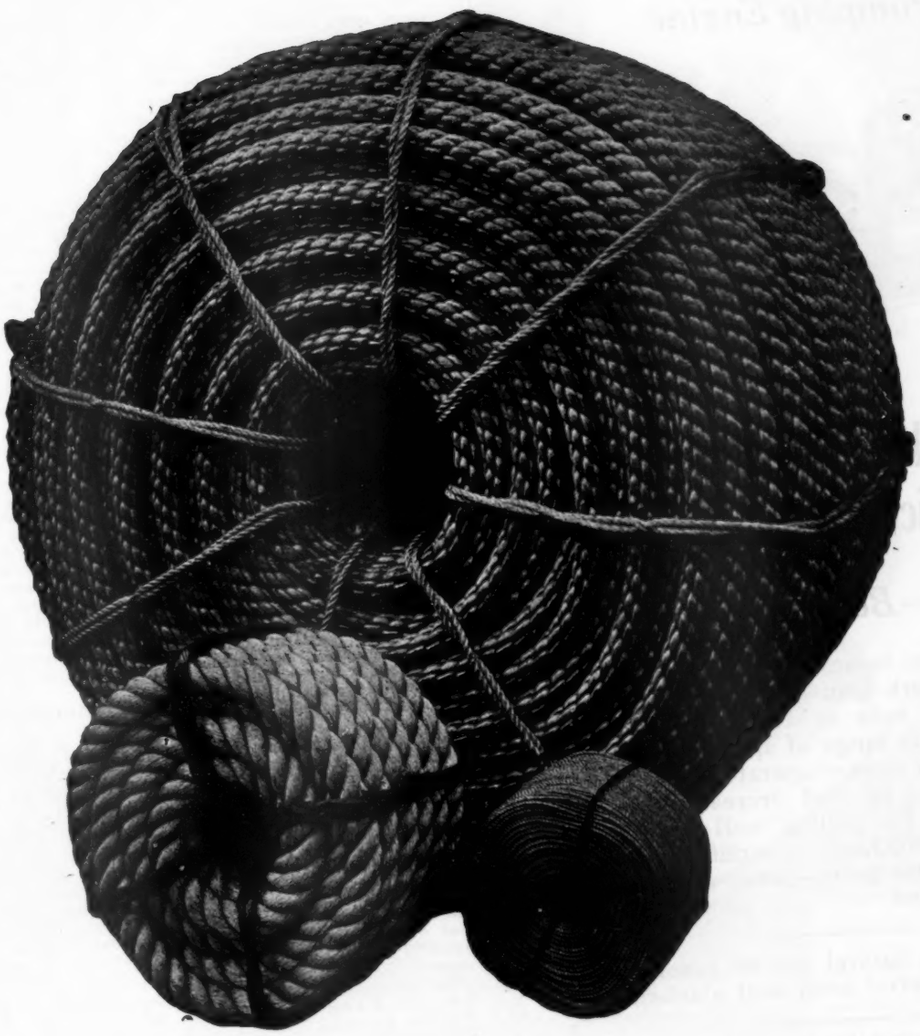
"We will never let our oil industry go back to private ownership," they say.

WILD GASSER CONTROLLED

The Cole Petroleum Co. of Oklahoma City reports that its wild gasser in Webb County, Texas, has been placed under control after running open for 34 days. The flow was estimated at 70,000,000 feet a day and the waste for the period at over 2,000,000,000 feet. Since it is under control the output is estimated at 50,000,-000 feet a day.

Three locations in the vicinity of this well have been made. Formations at different levels are to be tested, one hole to go to 2,150 feet where another sand is known to exist. The big gasser was completed at 1,708 feet.

New Bedford Cordage



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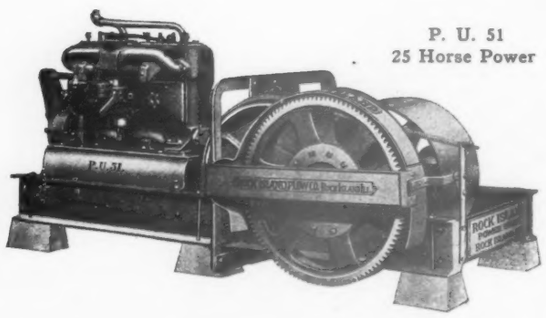

The Rock Island Power Unit Has Friction Transmission

Because

It eliminates reverse gears and clutch —Cannot jerk load—Reduces danger of parting rods or breaking cable. Permits wide range of speeds—7 forward — 7 reverse — operator can increase speed as load decreases—Reduces time for pulling well and increases production. Simplifies construction—less parts—fewer repairs—easier handled.

Operates on natural gas or gasoline. Complete control from well platform.

There are many other reasons why the Rock Island 4-Cylinder Pumping Engine equipped with Friction Transmission will operate your wells, requiring less attention from operator, less repairs, fuel and oil. Our catalog describing this machine in detail sent on request.

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STANDARDIZING PIPE FLANGES AND FITTINGS

Rapid progress is being made by the sectional committee on pipe flanges and fittings, under the American Engineering Standards Committee and sponsorship of the American Society of Mechanical Engineers, Manufacturers Standardization Society of the Valve and Fittings Industry, and Heating and Piping Contractors National Association.

The 1914 A. S. M. E. standard for cast iron flanged pipe and fittings, for 125-pound steam pressure, is now in revised proof form, and undergoing vote of the sectional committee. The edition involves a number of changes but does not differ in its broad outlines from the earlier form. One important change is the elimination of approximately 50 per cent of the sizes above 10 inches in diameter; the older size series provided an unnecessarily close spacing of diameters.

A remarkable work has been done in the preparation of standards for steel flanges and flanged fittings, for 250, 400, 600 and 900-pound steam pressure, with 750 degrees superheat. The work on this is nearly completed, although it involved the laying down of complete new designs, actually having never been commercially employed,—a necessary standardization in advance of the development of practical applications.

Plans are on foot for printing, in draft form, of all proposed standards including malleable and cast iron screwed fittings for 150 pounds square inch working steam pressure, cast steel flange standards up to 3,200 lbs. working steam pressure; cast iron flanges standards for 150 lbs. w. s. p. cast iron flange standards for pressures under 100 pounds w. s. p.; cast iron (screwed and flanged) long turn sprinkler fittings; ammonia fittings (screwed and flanged) screwed steel fittings and screwed non-ferrous fittings. The sectional committee, contains 62 members, representing 30 organizations.

Extensive work on pipe and pipe fittings accomplished during the last four or five years in Germany, Switzerland and Holland, by national standardizing bodies, has reached a tentative conclusion. These countries have under consideration well-advanced drafts of standards for pipe flanges and fittings that are in very close agreement. It is likely western and central Europe will adopt a comprehensive international system of pipe and pipe flange standards, which will include all kinds of metallic pipe,—cast iron, steel, etc.,—and the fittings used together with standard sizes and forms of gaskets and other accessory items.

The American Engineering Standards Committee announces the approval, as Tentative American Standards, of A. S. T. M. specifications for welded and seamless steel pipe and welded wrought iron pipe. The action was taken in accordance with the recommendation of a special committee under Chairman Stanley G. Flagg, Jr.

STANDARDS ADOPTED FOR SCREW THREADS

The American Engineering Standards Committee has just approved as American Standard a 32-page document, constituting the finished work of the sectional committee on standardization and unification of screw threads, in the field of threads for bolts, machine screws, nuts and commercially tapped holes. The committee worked under the joint sponsorship of the American Society of Mechanical Engineers and the Society of Automotive Engineers.

The report has been prepared in collaboration and agreement with the National Screw Thread Commission, and is based upon the "Progress Report" of the commission.

By adoption of the report, screw threads are narrowed down to, and standardized upon, two series—an "American Coarse Series" for general work, and an "American Fine Series" for work in which a finer thread is desirable, as with the special alloy steels used extensively in the manufacture of automobiles. The same form of thread is used in both.

The adoption of standard screw threads is perhaps the most important single advance in American industrial standardization, since screw threads are fundamental to design and manufacture in every field, and enter into almost every kind of manufactured product and machine. In every one of the great industries the standardization of screw threads is of paramount importance, and the confusion which would exist if the diversity of form and numbers of thread which prevailed 50 years ago were to return, would be almost inconceivable. Years ago the threading of a bolt or screw was left to the judgment of the individual mechanic who produced it. Interchangeability was neither expected nor possible. In the present specialization of industry, manufacture of such material upon a standard basis is a necessary development involving economies and conveniences of great importance.

The coarse-thread series is the present "U. S. Standard" (or "Sellers") supplemented by the "A. S. M. E. Standard" below ¼-inch, and the fine-thread series is the "S. A. E. Standard" supplemented by the "A. S. M. E. Fine-Thread."

Different classes of fit ("loose," "free," "medium" and "close") are established with corresponding numerical tolerances to provide for unavoidable inaccuracies of workmanship under practical conditions. A standard screw thread nomenclature and also a system of identification symbols for us in correspondence, drawings, and shop practice, are established.

Referring to international standardization, the foreword to the report states: "* * * the sectional committee hopes that further steps may be taken by mutual concessions which result in bringing together the Whitworth (British) and the American systems of threads so as to secure interchangeability in the English speaking world.

SAFETY WORK IN CALIFORNIA

J. M. Harrington, foreman miner, and C. P. Anderson, first-aid miner, Department of the Interior, attached to the Berkely, Cal., safety station of the Bureau of Mines, are engaged in an extensive itinerary in the California oil fields having for its object the training of employes in first-aid work. Mr. Harrington will be at Berkeley until September 12 training first-aid teams in the San Francisco Bay district. From September 15 to 26, he will train the employes of the Union and Associated Oil companies at Stockton, Cal. From October 6 to 8, with Mr. Anderson, he will attend the California State First-Aid contest at Riverside. Mr. Anderson trained first-aid contest teams at Taft from August 25 to 30. From September 1 to 6 he conducted training at Bakersfield; from September 8 to 19 at Santa Maria, and from September 22 to 26 at Santa Barbara. United States Bureau of Mines rescue car No. 1 will be stationed at Norwalk from September 13 to 24, and at Riverside from October 5 to 8.

BULLETIN ON OKLA. GEOLOGY

OKLAHOMA CITY, Okla., Sept. 6.—Dr. C. W. Shannon, director of the Bureau of Geology at Norman, an institution not related to the Oklahoma Geological Survey, announces that the bureau's first monthly bulletin relating to geological research in the State will be issued about September 1, probably from Oklahoma City. The bulletin will cover all phases of geological work in the State.

Doctor Shannon, who formerly was director of the Oklahoma Geological Survey, says the survey probably will publish shortly a report of research work done in Cimarron County, Oklahoma, a section of the State that has begun to attract some of the leading oil companies of the Middle West.

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For speedy service, wire Foxboro at Tulsa. When you need meters or recording and indicating instruments at once, Brown will have them on the spot before the next train leaves Tulsa.

The other day he had a call from the owner of some gas wells just brought in near Coweta. The roads were impassable but Brown flew down in 15 minutes with Foxboro Recording Instruments that were needed immediately, before the wells could be turned into the main lines.

It's worth remembering that you can get this kind of service at the same time you get instruments that oil and gas men consider the standard for accuracy and reliability. Just get in touch with Brown of Foxboro at Tulsa.

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Petroleum Course Has Been Prepared For N. Y. University

NEW YORK, Sept. 6.—Plans have been made for an unusually wide range of instruction in subjects relating to the oil industry during the coming season at New York University.

The university is planning to run the technical production courses in the College of Engineering at the University Heights branch as it has done in former years. Similarly, the elementary course at Wall Street known as "The Oil Industry and Company Operations" will be given at 5:15 on Wednesday as usual.

The big change and one that it is hoped will prove of great interest to the oil business, according to Dr. Ernest R. Lilley, who will conduct the courses, is in the character of the "Oil Executives Course" which received so much publicity last year. Last year the production side was stressed. This year the university is going to devote it only to the marketing side.

The course will be given on Monday evenings from 5:15 to 7.00, beginning with September 29.

The following details will give some idea of the scope of the work:

Resume of refinery practice and a discussion of the economics of refinery locations, preliminary to other discussions.

Gas and Fuel Oils.—Lectures taking up characteristics of available fuel oils, present marine and industrial burning practice, domestic burner developments, the legal problems involved in transportation and in city storage and the economics of competition between oil and coal in the East, especially.

Lubricating Oils.—Discussions covering the theory of lubrication, lubrication systems for bearings, steam and internal combustion engines, etc., the preparation of oils and greases—to meet commercial needs, the features of foreign tariffs and —rules and competition between oils of different bases (the relative merits of asphalt and paraffin base lubricants).

Gasoline.—The nature of the gasoline engine, specification concerning its fuel, the use of special blends and substitutes, distribution methods, state and country taxes and prices and market tendencies.

Kerosene and Burning Oils.—Uses and specifications, refinery treatment, marketing and foreign selling problems.

Paraffin Wax and Other Products.—These will be discussed in a similar manner as the needs of the class demand and as the time permits.

KENTUCKY-TENNESSEE

(Continued from Page 62)

(Bud) Kerr was shut down at 1,400 feet. The Daniel Boone Oil Co. is moving a rig to drill its No. 3 Logan, adjoining the Kerr, to the pay below the Pencil Cave in which a number of good wells have been finished this year.

J. A. McIntyre and others' were drilling at 320 feet on the J. A. Graves farm, on Galloway Creek. If oil is not found in the shallow pays the hole will be drilled to the 1,500-foot level.

Warren County Completions

In the Davenport Pool, west of Bowling Green, in Warren County, the Westland Oil Corp. completed its twenty-sixth straight producer for 15 bbls. at 1,107 feet, approximately 90 feet below the shale.

At Rockfield, southwest of Bowling Green, Deardorff and others got a 5-bbl. pumper in the shallow pay, Mississippian lime, above the shale.

In the northeast extension area, the Royal Oil Co. made a 7-bbl. pumper in its second venture on the R. H. Gott place. The hole finished at 1,076 feet and showed 25 feet of sand, from 1,045 to 1,070 feet where it was shot with 40 quarts of nitro.

Owensboro District

In the Owensboro district, comprising Hancock, Ohio and Daviess counties, the Kentucky Oil Co.'s No. 15 on the Amanda Stewart, in the Pellville Pool, pumped 15 bbls. from the Barlow sand. It is 400 feet west of the Taylor farm.

In the Hurricane district, the Dearborn Oil Co.'s No. 3 W. T. Barker, 400 feet north of No. 2 was dry in all pays.

At Herbert school house, Leeper & Roesner's No. 2 on the D. W. Bailey, 400 feet west of No. 1, made 5 bbls. from the Barlow sand.

The past week showed four new holes started in the Owensboro district. The Panther Creek was rigging up to drill No. 9 R. M. Miller, 400 feet east of No. 8; C. E. Daugherty was spudding No. 1 F. V. Miller 61 acres, north of the recent completion on the Milligan; I. N. Harkless was going ahead at 175 feet in his No. 4 J. L. and A. T. Casey; Leeper & Roesner were down 100 feet and drilling in their No. 3 C. W. Bailey, 375 feet north of No. 1.

Simpson County

In Simpson County the No. 1 D. R. Wilson, drilled by unknown parties made 2 bbls. on pumping jack at 532 feet. On the D. U. Hogan, in the Pilot Knob section, Small & Co.'s No. 2 was reported good for 4 bbls. at 476 feet.

AMERICA CONSUMES TWO-THIRDS OF OIL

WASHINGTON, D. C., Sept. 6.—Consumption of petroleum and petroleum products throughout the world in 1923 exceeded 38,000,000,000 gallons, of which the United States consumed over 25,000,000,000 gallons, or 66 per cent, in addition to more than 1,500,000,000 gallons of bunker oil shipped to United States ports for vessels in foreign trade, which would bring American requirements to over 70 per cent of the world figure, the Department of Commerce petroleum specialist, Homer S. Fox states. Great Britain, Russia, Canada, France, Mexico, British India and Argentina, in the order named, were the next largest consumers.

Of the 16 leading consumers, excluding the United States, two are in North America, one in the West Indies, two in South America, five in western Europe, two in eastern Europe and four in Far East. Per capita consumption is the highest in the United States, with Cuba, Canada, Chile and Argentina next.

EASTERN FIELDS

(Continued from Page 58)

It will not be drilled deeper until after connected to the pipe line.

In Hanover Township, Beaver County, the McConnell Oil Co. has completed a test on the Joseph McConnell farm and is showing for a light gas well in the 100-foot sand.

More Trouble at Deep Tests

On Chestnut Ridge, near Ligonier, West Moreland County, Pennsylvania, the Peoples Natural Gas Co. is delayed with a crooked hole at its deep test on the Seger Brothers farm. The well was drilling at 6,715 feet when the hole went bad. They have cemented back to 6,640 feet and are waiting for the cement to set when drilling will be resumed. The same companys' second deep test on the Booth-Flinn property is through the flint formation and drilling in lime at a depth of 7 005 feet.

Near Terra Alta, Portland district, Preston County, West Virginia, the Hope Natural Gas Co. has reached a depth of 3,892 feet at its proposed deep test on the Joseph Gordon farm and is fishing for a string of tools.

OPENS MOUNDS MACHINE SHOP

The Shefts Supply of Morris, Okla., recently opened up a pipe and casing yard and machine shop at Mounds, Okla., where it is prepared to handle the needs of the operators during the townsite boom at that point. Mr. and Mrs. H. B. Shefts have been handling oil field equipment during the past eight years, at the present time maintaining a large yard and machine shop at Morris; a store and machine shop at Haskell, and they also carry a small stock of materials at Coweta.

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Air Drill and Tool Hose
Oil Drillers' Hose
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Sand Blast Hose
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Boiler Washout Hose
Garden Hose
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Oxy-acetylene Hose
Fire Protection Hose and Hose for conducting acids, chemicals, gas, paints, etc.

THIS is an unretouched photograph of a section of Goodrich chemical fire hose, just as we received it from the Taunton, Mass., Fire Department. It is over *twenty years old!*

Made by Goodrich sometime in 1903 or 1904, it is still resilient and full of life after twenty years of active service.

Reports of Goodrich Hose in service for five, ten, fifteen and twenty years are not uncommon. One piece was returned after 27 years' use. While we would not claim that such faithful service is to be expected from every section of Goodrich Hose, yet we do believe that it is proof of the exceptional quality that is built into all hose that leaves the Goodrich factory.

Every brand of Goodrich Hose is built expressly for the job it must handle, and every length may be depended upon for plus service.

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Not so bad, - in service from 1904
until 1924 - Goodrich White Anchor
hose fitted with Leonard Couplings.
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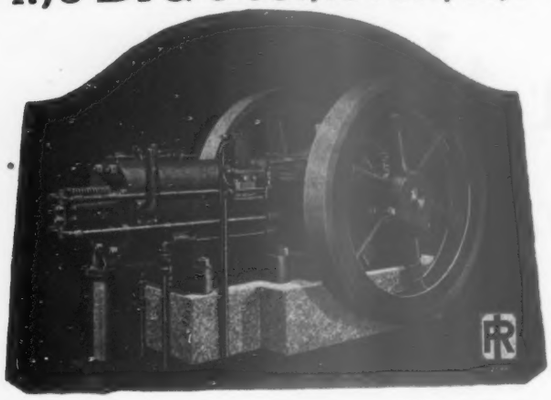

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GEOLOGISTS SPECIALIZING ON PETROLEUM PROBLEMS

(Continued from Page 32)

tent and the origin of the shales and associated sandstones and limestones. Is also studying the Mancos shale of New Mexico to determine results of intrusives, places of oil origin, and origin of sediments.

Bridgeman, Prof. P. W., University Museum, Cambridge, Mass., is studying deformation of rocks and determination of coefficients of friction between rocks and comparable bodies.

Burr, Prof. Freeman F., St. Lawrence University, Canton, N. Y., has nothing in progress but is "ready and willing to cooperate with the council in any way that may be suggested."

Bucher, Prof. Walter H., University of Cincinnati, Cincinnati, Ohio, is particularly interested in the physical principles involved in deformation of solids, and in interpretation of rock structure.

Cook, Prof. Charles W., Department of Geology, University of Michigan, Ann Arbor, Mich., has experimented to determine the capiliary relationships of oil and water.

Chadwick, Prof. George H., University of Rochester, Rochester, N. Y., has been tracing the upper Devonian of New York, which includes black shales and oil sands. This stratigraphic and structural work may furnish information regarding both source and reservoir rocks.

Specializes on Structure

Chamberlin, Dr. R. T., University of Chicago, Chicago, Ill., specializes on structural geology, and his work on isostasy, deformation of rocks, and the origin and development of deformation in various regions is important to the oil geologist.

Cumings, E. R., Department of Geology, Indiana University, Bloomington, Ind., has studied micropalentology of ordovician, Silurian and Devonian rocks, particularly in Ohio, Indiana and Kentucky; has specialized on bryozoa. Slides and illustrations of type fossils are available.

Dake, Prof. C. L., Missouri School of Mines, Rolla, Mo., is studying sources of Pennsylvania sediments in the Ozarks, and the textonic history of the Ozarks.

Daly, Prof. R. A., University Museum, Cambridge, Mass., is interested in studies on earth temperatures, isostasy, and sedimentary petrology.

Darton, N. H., United States Geological Survey, Washington, D. C., studies in structural history of a region.

Davis, T., Department of Geology, Columbia University, New York City, has made a compilation study of geology and oil production in South American oil fields.

Refining Problems

Dunlap, Prof., Missouri School of Mines, Rolla, Mo., has studied changes in composition of water due to contact with hydrocarbons, and also problems that bear on the refining of petroleum.

Emmons, Prof. W. H., University of Minnesota, Minneapolis, Minn., is interested in all problems of oil geology, and has directed experimental work by H. E. LaTendresse on flow of oil by head.

Ericksor, E. Theodore, United States Geological Survey, Washington, D. C., is studying chemical problems bearing on the genesis of petroleum and oil shale, and also alterations in composition of oil due to contact with water.

Fath, A. E., United States Geological Survey, Washington, D. C. Studies of rock deformation.

Fulweiler, W. H., United Gas Improvement Co., Philadelphia, Pa., has worked on means of identifying oils by their chemical and physical properties.

Gilluly, James, United States Geological Survey, Washington, D. C. Studies in sedimentary petrology.

Glenn, Prof. L. C., Vanderbilt University, Nashville, Tenn., has conducted studies bearing on origin and present composition of sediments that contain bituminous and carbonaceous matter, the nature of the material when first deposited and subsequent changes; studies in sedimentary petrology; studies in physiographic expression of structural forms most important in petroleum geology, and studies in structural history of a region.

Salt Dome Cap Rocks

Goldman, M. I., United States Geological Survey, Washington, D. C., specializes on petrography of sediments, and is now studying the nature and origin of salt dome cap rocks.

Graton, Prof. L. C., Foxcroft Building, Cambridge 38, Mass., has studied the deposition of calcite, barite, gypsum and similar minerals in nature, and the secondary deposition of cement by these minerals.

Harding, Dr. E. P., Department of Geology, University of Minnesota, Minneapolis, Minn., has worked on the chemical composition of oil.

Hawkins, G., Department of Geology, Columbia University, New York City, has studied Mexican Tertiary formainifera. This study was directed particularly to application in connection with petroleum-bearing formations.

Heald, K. C., United States Geological Survey, Washington, D. C., is studying characteristics of source beds of petroleum; the structural control of oil accumulation; occurrence of oil in red beds, and in formations of known continental origin.

Hersey, M. D., Pittsburgh Experiment Station, United States Bureau of Mines, has been perfecting an aneroid barometer free from "lag" for surveying; has designed apparatus for studying migration of fluids through porous bodies, and has studied the viscosity of oil under high temperature and pressure.

Hewett, D. F., United States Geological Survey, Washington, D. C. Studies of rock deformation. Studies the regional structural histories.

Studying Petrography

Holden, Prof. R. J., Virginia Polytechnic Institution, Blacksburg, Va., has been studying both the petrography and the paleontology of the Tertiary and Cretaceous in northwest Louisiana.

Hyde, Prof. J. E., Western Reserve University, Cleveland, Ohio, has been working on the structural history of northeastern Ohio and has done some incidental work on micropaleontology.

Hyer, Prof. Robert S., Southern Methodist University, Dallas, Tex., has studied the physical states of oil and gas in oil wells.

Jeffreys, Prof. E. C., University Museum, Cambridge, Mass., has studied the origin and composition of sediments that contain bituminous and carbonaceous matter.

Jones, Prof. F. C., University of Nevada, Reno, Nev., has done some work on the origin of petroleum and particularly with genetic relation between saline water and origin of oil.

Jones, Dr. W. F., Massachusetts Institute of Technology, Cambridge, Mass., is interested in work on isostasy; application of descriptive geometry and trigonometry to solution of problems of faulting and folding; composition of sediments that contain bituminous and carbonaceous matter; deformation of rocks under load; studies in physiographic expression of structural forms, and studies in structural history of a region.

Kew, W. S. W., United States Geological Survey, 901 South Norton Avenue, Los Angeles, Cal. Studies in micropaleontology. Studies in regional structure.

Vapor Pressure

King, Prof. J. F., Thompson Chemical Laboratory, Williams College, Williamstown, Mass., is interested in vapor pressure studies that might be applied to oil field problems such as the genesis of certain of the vein hydrocarbons, asphalt deposits, etc., and that should also have a bearing on power of gas to transport oil, water, etc.

Lane, Prof. Henry E., University of Rochester, Rochester, N. Y., (Professor of Physics), has no projects under way but is sufficiently interested to undertake phases of this work.

Leslie, Eugene H., Department of Chemical Engineering, University of Michigan, Ann Arbor, Mich., is interested in chemical and physical properties of oil as they occur in nature and re-

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You will find that you have saved money on the purchase price. A GMC costs less than other **high** grade **trucks** of comparative capacity.

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—but the Devil's Steel Hand took care of it in short order—another remarkable record

Devil's Steel Hand

The other day, in underreaming their 8-inch, the Landreth Production Co., who are drilling a rank Wild Cat in Ford County, Texas, broke a new Wilson lug off at the shoulder. The lug went to the bottom.

Any contractor or driller will tell you that this particular kind of fishing job is about the worst there is. Harry Watson, who is Landreth's Field Superintendent, and who sticks mighty close to Ed. Landreth's Wild Cat jobs to keep the crews busy when the price of oil is low, knew from experience, however, the tools that he needed. He drove the 90 miles to Breckenridge and took a Devil's Steel Hand back with him.

When he got out to the well he put on a short spud and bounced the lug a few times. Then he put the Devil's Steel Hand on the string and picked out the broken lug.

The surest way to change that terrible sensation that comes when a fishing job is necessary into the "grand and glorious feeling" that comes when the job is cleaned out is to see to it that a Devil's Steel Hand or Devil's Pitchfork is on the job. Immediate shipment—write for details.

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113

searches bearing on their genesis and postgenetic changes.

Logan, Prof. W. N., State Geologist, Indianapolis, Ind., in cooperation with J. R. Reeves has studied the structural history of southwestern Indiana.

Longwell, Prof. C. R., Yale University, New Haven, Conn. Deformation of rocks, particularly under load.

Migration of Oil

McQueen, Henry, University of Missouri, Columbia, Mo., is working on migation of oil through various types of sandstones and sands.

Mehl, Dr. M. G., University of Missouri, Columbia, Mo., has studied genetic relation between compacting of sediments and oil-field structures; climatic conditions and oil accumulation; land distribution and oil accumulations.

Meighn, Merl H., Department of Chemical Engineering, Columbia University, New York City, has studied the occurrence of phenols in lower temperature coal tars.

Melcher, A. F., United States Geological Survey, Washington, D. C., has specialized on study of porosity and permeability of oil lands.

Moulton, Gail F., University of South Dakota, Vermillion, S. D., has been experimenting with the reduction of ferric oxide pigment in sandstones with petroleum.

Raymond, Prof. P. E., University Museum, Cambridge 38, Mass., is interested in studies relating to structural histories of large areas.

Reed, Dr. R. D., Stanford University, Cal., is working on correlation by means of occurrences of heavy minerals in sediments. Has had some success in short range correlations.

Reeves, Frank, is studying relations between ground water and oil and also the mode of formation of certain peculiar types of faulted anticlines.

Reeves, Dr. J. R., Department of Geology, Indiana University, Bloomington, Ind., has for three years been studying oil shales of Indiana and Kentucky and geologically related shales. The work includes distribution, origin, microscopic study of organic and inorganic composition, chemical analysis, physical characteristics, yield of oil, composition of oil, and relation between fixed carbon, volatile matter, nitgrogen and oil yield. In cooperation with Prof. W. N. Logan has studied the structural history of southwestern Indiana.

Rettger, Prof. R. E., Cornell University, Ithaca, N. Y., is studying criteria to permit ditsinguishing between contemporaneous and hard rock deformation.

Drillers' Logs

Rich, John L., Box 3, Ottawa, Kans., has studied accuracy of drillers' logs as determined by comparison with core drill records; influence of hydraulic currents on migration and accumulation of oil; and origin and characteristics of various types of sand bodies.

Ross, C. S., United States Geological Survey, Washington, D. C. Studies in sedimentary petrology.

Roundy, Paul V., United States Geological Survey, Washington, D. C., has specialized on carboniferous micropaleontology.

Rubey, W. W., United States Geological Survey, Washington, D. C., is studying the origin and significance of faulted monoclines.

Seyer, Dr. W. F., Department of Chemistry, University of British Columbia, Vancouver, Canada, has investigated the tar sands of norththern Alberta, and studied the nature of the hydrocarbons present in the asphalt.

Sherrick, J. L., Pittsburgh Experiment Station, United States Bureau of Mines, Pittsburgh, Pa., has studied the products of detonation of explosives, which may have an application in studies on changes in composition of water due to contact with hydrocarbons, since some of the experiments indicate that methane may be formed in the Bichel gage from carbon monoxide and hydrogen produced.

Shideler, Prof. J. H., Oxford, Ohio, has studied bryoxoa and ostracada up to Mississippian, although he has specialized on the Ordovician.

Shuler, Prof. Ellis W., Southern Methodist University, Dallas, Tex., has conducted studies in micropaleontology and in sedimentary petrology.

Stauffer, John C., Department of Chemical Engineering, Columbia University, New York City, has studied the nitrogenous constituents in oil from the Green River shale.

Strieter, Ottomar G., Department of Chemical Engineering, Columbia University, New York City, has studied the composition of asphalt.

Migration Under Pressure

Tarr, Prof. W. A., University of Missouri, Columbia, Mo., has experimented with migration of oil under high pressure.

Thom, W. T., Jr., studies in structural history of a region.

Twenhofel, Prof. W. H., Science Hall, University of Wisconsin, Madison, Wis., has studied criteria for distinguishing between contemporaneous and hard rock deformation.

Udden, Prof. J. A., University of Texas, Austin, Tex., is a pioneer in the application of micropaleontology to problems of petroleum geology.

Ulrich, Dr. E. O., United States National Museum, Washington, D. C., is an authority on micropaleontology, and particularly on Paleozoic forms.

Van Orstrand, Dr. C. E., United States Geological Survey, Washington, D. C., has studied movements of fluids through capillary openings. He also studied methods for determining porosity of ceramic materials and similar dry substances.

Watkeys, Prof. Charles, University of Rochester, Rochester, N. Y., has studied the mathematics of stratigraphic and fault movements.

Watson, Dr. Thomas L., Virginia Geological Survey, Charlottesville, Va., is interested in stratigraphic problems relating to possible occurrence of oil in Virginia, and also in relation between carbon ratios of coal and presence of petroleum.

Wells, R. C., United States Geological Survey, Washington, D. C., deposition of calcite, barite, gypsum and similar minerals in nature and secondary deposition of cement by these minerals. Changes in composition of water due to contact with hydrocarbons.

White, David, United States Geological Survey, Washington, D. C., is investigating origin of oil, origin of oil shales and character of the embedded pyrobitumen; micropaleontology, isostasy.

Wissler, S., Department of Geology, Columbia University, New York City, has studied conditions under which sources of oil are deposited.

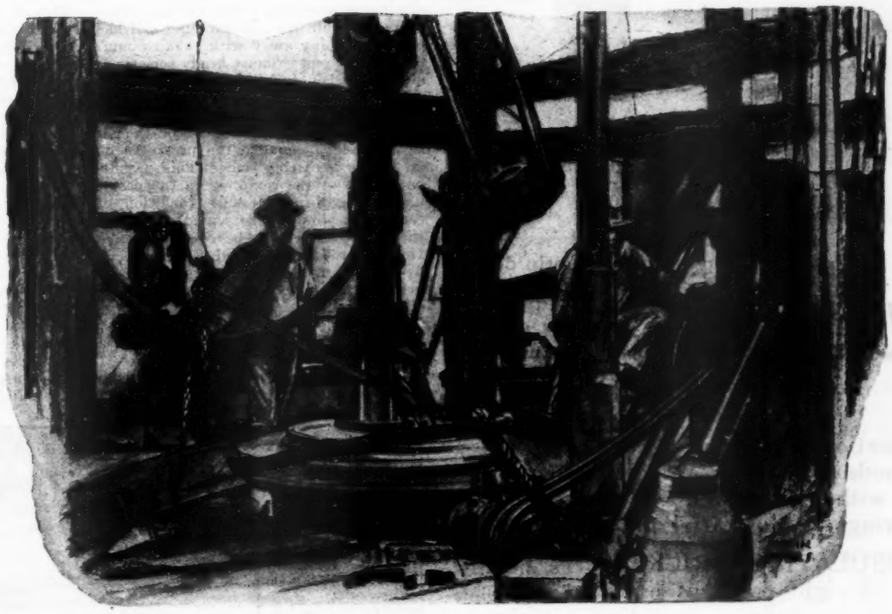
LEASING WORK IN SALT CREEK

On July 1 a total of 1,018 wells had been drilled on Government owned land in the Salt Creek oil field in Wyoming, under the provisions of the general leasing act, states the Department of the Interior, through the Bureau of Mines. The following is a summary showing the producing and drilling activity on Government land in this field at that time:

Wells producing from shale	51
Wells producing from shale, idle	16
Wells producing from first Wall Creek sand	63
Wells producing from first Wall Creek, idle	28
Wells producing from second Wall Creek sand	672
Wells producing from second Wall Creek, idle	65
Wells producing from third Wall Creek sand	5
Wells producing from Lakota sand	1
Total	893
Drilling wells	123
Drilling wells suspended	2
Total	125

WYOMING ROYALTIES

CASPER, Wyo., Sept. 6.—The oil royalties due the State of Wyoming have been paid into the State treasury at Cheyenne and will shortly be distributed to the different counties of Wyoming according to the law that places this sum at the disposal of the school system of the State. This sum is $1,713,798.12 and represents the share that Wyoming has in land the Federal Government has in the State and which are producing oil in the various fields.



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on the Ordovician.

Shuler, Prof. Ellis W., Southern

the State and which are producing on the various fields.

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COMPRESSING STATION HAS NOTABLE EQUIPMENT

(Continued from Page 68)

type Cooper compressors. Each compressor has a 24-hour piston displacement of 9,000,000 feet of gas with an initial pressure of 100 pounds and a discharge pressure of 250 pounds. The exhaust from these engines is conveniently disposed of by piping it over the water storage pond back of the building. This eliminates providing traps for the water introduced into the exhaust lines and has permitted doing away with exhaust mufflers stacks and exhaust heads sometimes incorporated in gas engine plant design.

The intake lines are all assembled in a manifold just outside the building and so connected to each compressor that it is possible to equalize the pressures on all of the gathering lines. This permits one or all of the compressors to operate under a uniform pressure condition or each intake line can be separated so that the compressors may be operated under varying pressure and load conditions. A by-pass is provided for each intake line to permit gas to be delivered into the discharge line when conditions warrant. This is an ideal piping arrangement and is seldom accomplished so thoroughly as at the Cambridge plant.

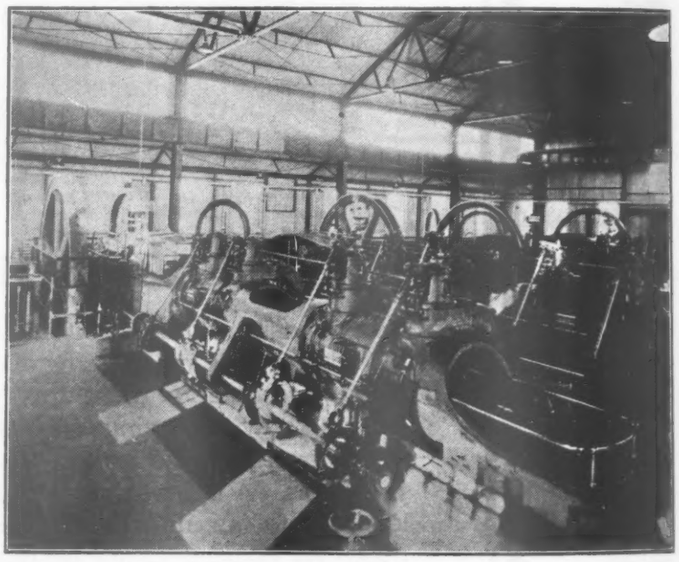
The manifold pit consists of a concrete basin divided into two sections to avoid exposing too great a length of the lines. This reduced vibration and the tendency of the lines to break at a connection under high pressure.

The gas after leaving the station under high pressure passes through a set of cooling coils designed to offer a minimum of resistance yet remove the heat of compression from the gas reducing it to a temperature that will not be injurious to the main line connections. The final temperature seldom exceeds 100 degrees Fahrenheit in the hottest weather. These after coolers are supported on concrete piers over the reservoir which makes it unnecessary to provide a basin under the coils to catch the water sprayed over the coils. The coils are constructed of 4-inch pipe connected by long radius bends. Each complete coil has a cooling surface of 1,000 square feet. Galvanized troughs of a standard design are placed parallel to and above each vertical set of coils for water distribution.

The auxiliary building contains two 80-H.P., horizontal, single cylinder, single acting, 4-cycle, 18-inch by 20-inch Cooper special electric type gas engines direct connected to Crocker-Wheeler, 60 K.W., 125 volt, 480 ampere, 225 R.P.M. compound wound, direct current generators. These units provide current for the operation of the machine shop equipment, motor-driven centrifugal pumps, air compressors and lighting service for the station. Ignition for the gas engines is also derived from this source, being stepped down to the proper voltage through a charging panel supplying a set of storage batteries connected by the ignition circuit.

A Casey-Hedges horizontal water tube boiler, having ample capacity for heating the buildings separates the auxiliary units from the machine shop. This boiler carries all of the appliances necessary for efficient operation, including a Doreco Type S, low pressure gas-burning system which controls the amount of air necessary for proper combustion, the amount of fuel used being governed through a regulator controlled by the steam pressure carried.

Three No. 4 Goulds, single stage, double suction, 400 G.P.M., 80 feet, head centrifugal pumps, each driven through flexible couplings by 15 H.P. General Electric 115 volt, 1700 R.P.M., constant speed, compound wound direct current motors, furnish cooling water for the circulating systems in the compressor units and auxiliary equipment. These pumps are located in a concrete pit in one end of the building deep enough to provide a submerged suction. The 12-inch suction line to these pumps has a swing joint where it enters the reservoir. This permits the end of the pipe to be lifted from the water by means of hoisting winch, conveniently anchored on the bank of the pond, if the suction strainer becomes clogged with leaves or other debris. An Elliot twin strainer is also provided in the water piping to further insure clean jacket circulating water.



The compressor units composed of four horizontal, single tandem, double acting gas engines.

An elevated steel tank 15 feet and 3 inches in diameter by 17 feet and 3 inches high, having a capacity of 30,000 gallons, mounted on 37 feet 6 inch steel supports is connected with the discharge line from the circulating water pumps to insure constant pressure and compensate for any period the pumps are idle.

Two 6-inch by 3¼-inch by 6-inch Ingersoll-Rand, Class E-R-2 air compressors, driven through short belt drive by 20 H.P. General Electric, 115 volt, 1,150 R.P.M. type R.C., direct current motors, are installed near the generator units and furnish air for starting the compressor and generator units and for machine shop use. These compressors each have a capacity of 66 cubic feet of free air per minute against a pressure of 225 pounds.

A 4-foot by 16-inch receiving tank with triple lap riveted, electric welded longitudinal seams, double lap riveted, electric welded girth seams and double riveted, electric welded convex and concave heads, serves as storage for the compressed air. This air receiver has a capacity of 3,600 cubic feet at 250 pounds pressure and is located just outside the auxiliary building.

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With a complete mining organization engaged in mining gold, silver, copper, lead, zinc and other metals and producing the only pure tripoli in the world out of which is manufactured useful household articles superior in quality to those now being supplied to the market because tripoli is Nature's product.

With approximately 390,000 acres of oil and gas leases extending from Pennsylvania to California—with only ninety thousand acres operated and developed, upon which there are twenty-six hundred oil wells producing more than seven thousand barrels of crude oil daily and six hundred twenty-five gas wells, and six hundred miles of pipe lines;

With a fully equipped, complete, modern refinery located at Barnsdall, Oklahoma, in the heart of the corporation's mid-continent production, with over one hundred miles of pipe line transporting the crude oil to the refinery, where it is manufactured into high grade, uniform quality products, including Lubricating Oils, Cylinder Stocks and Wax;

With twelve absorption gasoline plants to extract the natural gasoline from the casing head gas of the producing oil wells and a fleet of steel tank cars for shipping and transporting all of its refined oils to market;

With an export department constantly preparing shipments of Barnsdall Products for export to European countries and South America, through the ports of New Orleans and Mobile;

With a large warehouse and storage plant in Kansas City, Mo., with distributing stations well located in the agricultural country of Missouri and Kansas;

With the following subsidaries owned and controlled by the Barnsdall Corporation;

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Barnsdall Refining Co. of Maine
Barnsdall Zinc Company
Dempseytown Gas Company
Jantha Producing Company
Lynn Natural Gas Company
Marnet Oil & Gas Company
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Pawhuska, Okla.
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INCREASED PRODUCTION AND EXPORTS OF REFINED PETROLEUM IN POLAND

The increased production and exportation of refined petroleum products in Poland was marked during the first quarter of 1924 by a total exportation amounting to 101.369 metric tons, an increase of 22.962 over the first quarter of 1923. Czechoslovakia took 29,772 metric tons of this amount and Germany took 28.961. The next highest figure was 18.158 tons to Austria, and Danzig, Hungary, and Switzerland followed. Altogether the exports went to 16 European countries.

This exportation to other European markets was the partial cause of a noticeable decrease in the home consumption, prices increasing with the improved exportation. But unfavorable local conditions in industry became more general during this period, and also operated to reduce the Polish demand for the refined products.

The exportation of the principal refined products is shown in the following table:

Polish Exports of Principal Petroleum Products, First Quarter, 1924
(Metric tons.)

Countries of Destination	Gaso.	Kero.	Gas oil	Lub. oil	Prfn.
Austria	4,131	2,291	5,717	3,756	828
Belgium	....	....	....	....	90
Czech'sl'akia	7,830	10,699	155	4,118	227
England ...	....	....	....	....	130
Danzig	1,069	4,493	1,733	1,171	2,829
Denmark ...	64	.....	219	60	190
France	....	....	....	88	635
Germany ...	6,177	4,914	6,177	8,593	1,612
Netherlands.	....	....	....	....	85
Hungary ...	703	542	2,042	1,763	30
Italy	....	.....	14	.....	50
Rumania ...	....	.....	.....	.....	640
Russia	....	.....	.....	.....	260
Sweden	....	.....	.....	.....	1
Switzerland..	100	147	2,727	250	30
Yugoslavia...	26	.....	10	113	110
Total . .	20,100	23,086	18,794	19,911	7,767

In addition, Poland exported during the quarter 8.937 metric tons of semi-refined petroleum, 1.615 of coke, 1,122 of asphalt, 45 of hard grease, 11 of vaseline, and 1 of candles. The most of the semi-refined products was taken by Czechoslovakia, but Danzig, Germany, and Austria also took large consignments of these and the other products. The total exportation of these products, however, showed a decline from 1923, while exportation of the more important products was considerably increased. The increased use of gas for lighting, both in Poland and elsewhere, accounts for the falling off in candle manufacture, and there is an increasing tendency to replace petrolatum (vaseline) with cheaper substitutes.

During this first quarter of 1924 the Polish refineries used 179.856 metric tons of crude oil compared with only 158.346 tons in 1923. The gross production of crude petroleum in Galician Poland during this period was 189.467 tons, an increase over the 1923 total of 174,303 for the first quarter, but still short of the 1913 average of 278,417 for three months. At the end of March, stocks of crude oil on hand amounted to 62,742 metric tons, of which 38,727 were in the tanks and warehouses of petroleum companies. A new refinery commenced operations in Lemberg during March, and at the end of the quarter there were 34 refineries in operation in the country, employing 8,346 workmen.

IMPROVED DISTILLATION IN RICHFIELD REFINERY

LOS ANGELES, Cal., Sept. 8.—The newly completed Richfield Oil Co. refinery at Hynes, Cal., together with its steel storage and general pipe line system, represents an investment of approximately $2,000,000, and is considered one of the most complete plants of its kind in the country. The units so far installed were designed to handle 15,000 bbls. of crude daily and have already exceeded expectations in capacity and efficiency. When the site was purchased, adequate room for expansion was provided and the present capacity can be quadrupled at a minimum expense.

The plant embodies many advanced and improved processes of distillation. Over two years ago, engineers of the company commenced a series of experiments in commercial fractionation at the Richfield Bakersfield refinery and the results of this work appear in perfected form in the new refinery where refined oils are manufactured as definite chemical products rather than indeterminate mixtures. This has been accomplished not so much by radical changes in refining methods, as by steadfast application of the fundamental principle of continuous fractionation and rectification on a commercial scale, which is especially important in the handling of crude oils from southern California fields.

It has been found that continued redistillation eliminates impurities in crude. by the Richfield process, this redistillation is accomplished in a system of continuous rectifying columns. As an added safeguard, the company's engineers have developed a continuous treating process which completely removes any trace of acids or other impurities which might not have been wholly eliminated in the refining process.

Although great stress is laid on the production of high quality gasoline, the fractionating apparatus is so flexible and efficient that it permits the production of special distillates of very narrow boiling point ranges. These special products are employed by certain chemical industries, and must be of a high degree of purity.

OIL RESERVE LEASE CANCELLATION ASKED

LOS ANGELES, Cal., Sept. 6.—Cancellation of another Doheny lease in the Elk Hills Reserve is sought in a suit filed in district court here on behalf of the United States Government against the Pan American Petroleum Co. asking that a lease on Sections 1 and 2 in the Naval Reserve be declared void on the ground that it was illegally and corruptly obtained.

The suit is similar to one filed last March seeking cancellation of the Doheny lease on Section 34, and is based on similar allegations, the complaint charging that no open bidding preceded the granting of the lease; that no adequate consideration was mentioned, and that E. L. Doheny, head of the Pan American Petroleum Co., gave Albert B. Fall, then Secretary of the Interior, $100,0000 to corruptly "secure special privileges."

An injunction is also sought which would restrain the defendant corporation from drilling additional wells on the property. Pending litigation the court is requested to appoint a receiver to take charge of the property.

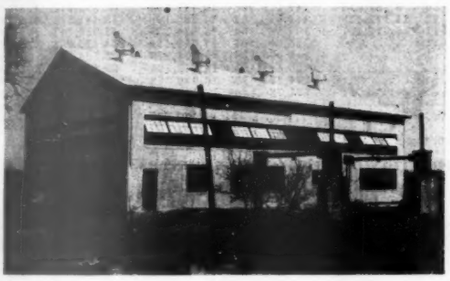
OIL BUSINESS BETTER, DECLARES W. G. SKELLY

NEW YORK, Sept. 6.—There has been substantial improvement in the oil industry during the past few months, and this improvement is continuing, according to a statement on conditions issued by William G. Skelly, president of the Skelly Oil Co.

"The restrictive policies being carried out by all of the large operators are showing good effects," Mr. Skelly asserted. "In Texas, for instance, the situation is in excellent shape, and pipe lines are now seeking more oil. Recently one big concern has been offering a premium for Pennsylvania oil on long contracts.

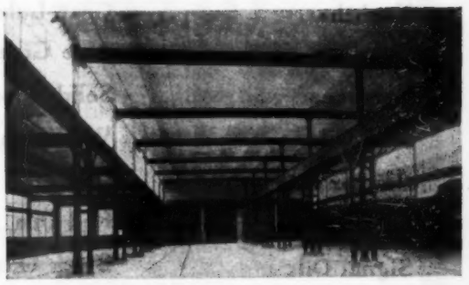
Mr. Skelly stated that the refining branch of the industry recently has shown a marked improvement. The Skelly refineries, during May, June and July, shipped 64 per cent more gasoline than during the corresponding period last year.

The Toledo Refinery, the largest refinery in Ohio and one of the largest in the United States.



An Austin-built main line pumping station in the Texas field.

THE AUSTIN METHOD



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The Oil Industry the world over is using Austin Buildings. They are housing oil equipment in practically every state in the Union; in Canada, Mexico, South America, Europe and Asia.

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REFINED PETROLEUM STATISTICS STATE OF CALIFORNIA BY MONTHS

PRODUCTION OF GASOLINE BY MONTHS
(Unit of gallons)

Month—	1924 Total Gallons	1924 Daily Average	1923 Total Gallons	1923 Daily Average	1922 Total Gallons	1922 Daily Average
January	115,330,234	3,720,330	92,686,090	2,989,874	44,790,331	1,444,849
February	112,082,190	3,864,903	92,852,538	3,316,162	43,806,932	1,564,533
March	126,043,182	4,346,317	104,402,122	3,367,810	49,141,955	1,585,224
April	120,364,468	4,012,149	102,428,548	3,414,285	50,991,900	1,699,730
May	122,345,924	3,946,643	112,314,674	3,623,054	52,468,152	1,692,521
June	116,779,487	3,892,649	115,316,719	3,843,891	54,961,369	1,832,046
July	102,279,720	3,299,346	121,212,438	3,910,079	59,063,530	1,905,275
August	.....	.....	109,165,919	3,521,481	67,817,696	2,187,668
September	.....	.....	103,618,605	3,453,954	70,139,443	2,337,981
October	.....	.....	119,134,600	3,843,052	65,873,412	2,124,949
November	.....	.....	106,195,727	3,539,858	64,586,228	2,152,874
December	.....	.....	103,872,185	3,350,716	69,856,800	2,253,445
Total	815,225,205	3,827,348	1,283,200,165	3,515,617	693,497,748	1,899,994

SHIPMENTS AND CONSUMPTION OF GASOLINE BY MONTHS
(Unit of gallons)

Month—	1924 Total Gallons	1924 Daily Average	1923 Total Gallons	1923 Daily Average	1922 Total Gallons	1922 Daily Average
January	99,626,326	3,213,752	76,818,930	2,439,330	36,645,242	1,182,104
February	89,576,187	3,088,800	85,605,548	3,164,464	40,383,803	1,398,787
March	104,083,791	3,357,542	86,152,824	2,779,123	50,669,498	1,634,500
April	109,838,576	3,661,286	103,802,851	3,460,095	48,869,164	1,628,972
May	112,778,310	3,638,010	101,873,191	3,286,232	61,915,087	1,997,261
June	105,647,148	3,521,571	119,582,787	3,986,093	62,914,339	2,097,145
July	118,497,171	3,822,489	127,486,676	4,112,472	65,584,330	2,115,624
August	.....	.....	92,146,469	2,972,467	65,662,730	2,114,927
September	.....	.....	113,124,583	3,770,819	60,680,952	2,022,698
October	.....	.....	104,792,275	3,380,396	50,320,008	1,623,226
November	.....	.....	90,185,159	3,006,172	50,510,426	1,683,681
December	.....	.....	86,543,829	2,791,736	53,753,805	1,733,994
Total	740,046,509	3,474,397	1,190,786,190	3,262,428	643,789,374	1,763,886

STOCKS OF GASOLINE BY MONTHS
(Unit of Gallons)

Month—	1924 Total Stocks	1924 Monthly Surplus	1923 Total Stocks	1923 Monthly Surplus	1922 Total Stocks	1922 Monthly Surplus
January 1	191,780,375	.....	99,366,400	.....	49,658,025	.....
January 31	207,484,283	16,703,908	116,433,560	17,067,160	57,803,115	8,145,089
February 28	229,991,286	22,507,003	120,680,550	4,246,990	65,246,244	7,443,129
March 31	251,950,677	21,959,391	138,055,780	17,375,230	63,718,701	*1,527,543
April 30	262,476,569	10,525,892	136,684,477	*1,374,303	65,841,447	2,122,746
May 31	272,044,183	9,567,614	147,125,960	10,441,483	56,394,512	*9,446,935
June 30	283,176,522	11,132,339	142,859,862	*4,266,108	48,441,542	*7,952,970
July 31	266,959,071	*16,217,451	136,585,654	*6,274,208	41,920,742	*6,520,800
August 31	.....	.....	153,605,104	17,019,450	44,175,708	2,254,966
September 30	.....	.....	144,099,126	*9,505,978	53,634,199	9,458,491
October 31	.....	.....	158,441,451	14,342,325	69,187,603	15,553,404
November 30	.....	.....	174,452,019	16,010,568	83,263,405	14,075,802
December 31	.....	.....	191,780,375	17,328,356	99,366,400	16,102,995
Total	.....	75,178,696	.....	92,413,975	.....	49,709,574

*Decrease—reduced—shortage.

PRODUCTION OF KEROSENE BY MONTHS
(Unit of gallons)

Month—	1924 Total Gallons	1924 Daily Average	1923 Total Gallons	1923 Daily Average	1922 Total Gallons	1922 Daily Average
January	24,877,077	802,486	15,759,990	508,387	17,211,218	555,201
February	23,387,949	835,284	17,712,987	632,607	17,478,297	624,225
March	20,917,092	674,745	18,405,327	593,720	15,750,676	508,086
April	23,930,144	797,671	16,359,965	611,999	14,722,826	490,761
May	24,026,326	775,043	20,519,907	661,932	18,931,766	610,702
June	20,108,017	670,267	17,998,275	599,943	17,713,315	590,444
July	20,218,984	652,225	16,285,670	525,344	15,313,484	493,983
August	.....	.....	16,399,772	529,025	14,445,615	465,988
September	.....	.....	17,296,559	576,552	16,431,183	547,706
October	.....	.....	15,468,701	498,990	14,932,890	481,706
November	.....	.....	17,941,590	598,053	18,012,792	600,426
December	.....	.....	23,991,576	773,922	14,347,967	462,838
Total	167,465,589	739,275	216,140,319	592,165	195,292,029	535,047

SHIPMENTS AND CONSUMPTION OF KEROSENE BY MONTHS
(Unit of gallons)

Month—	1924 Total Gallons	1924 Daily Average	1923 Total Gallons	1923 Daily Average	1922 Total Gallons	1922 Daily Average
January	26,767,633	863,472	25,008,328	806,720	15,191,418	490,046
February	19,372,047	691,859	15,898,802	567,814	16,777,098	599,182
March	12,289,068	396,422	20,527,683	662,183	20,869,690	673,216
April	30,458,089	1,015,270	13,378,980	445,966	14,464,545	482,152
May	20,051,493	646,822	20,623,245	665,266	16,525,034	533,066
June	26,114,711	870,490	20,018,536	667,285	11,286,092	376,203
July	21,756,808	701,833	9,768,029	315,098	18,776,818	605,704
August	.....	.....	20,560,453	663,240	13,679,116	409,004
September	.....	.....	12,868,541	428,951	13,193,406	439,780
October	.....	.....	18,305,447	590,498	19,934,240	643,040
November	.....	.....	18,830,622	627,687	19,561,983	652,066
December	.....	.....	17,742,217	572,330	9,483,703	305,926
Total	156,809,849	736,196	213,530,883	585,016	189,743,143	519,844

STOCKS OF KEROSENE BY MONTHS
(Unit of Gallons)

Month—	1924 Total Stocks	1924 Monthly Surplus	1923 Total Stocks	1923 Monthly Surplus	1922 Total Stocks	1922 Monthly Surplus
January 1	30,227,403	.....	27,617,967	.....	22,069,081	.....
January 31	28,336,847	*1,890,556	18,369,629	*9,248,338	24,088,881	2,019,800
February 28	32,352,749	4,015,902	20,183,814	1,814,185	24,790,080	701,199
March 31	40,980,773	8,628,024	18,061,458	*2,122,356	19,671,066	*5,119,014
April 30	34,452,828	*6,527,945	23,042,443	4,980,985	19,929,347	258,281
May 31	38,427,661	3,974,833	22,939,105	*103,338	22,336,079	2,406,732
June 30	32,420,967	*6,006,694	20,918,844	*2,020,261	28,763,302	6,427,223
July 31	30,883,143	*1,537,824	27,436,485	6,517,641	25,299,968	*3,463,334
August 31	.....	.....	23,275,804	*4,160,681	26,066,467	766,499
September 30	.....	.....	27,703,822	4,428,018	29,304,244	3,237,777
October 31	.....	.....	24,867,076	*2,836,746	24,302,894	*5,001,350
November 30	.....	.....	23,978,044	*889,032	22,753,703	*1,549,191
December 31	.....	.....	30,227,403	6,249,359	27,617,967	4,864,264
Total	.....	655,740	.....	2,609,436	.....	5,543,886

*Decrease—reduced—shortage.

IRVINE, WYO. GASSER

CASPER, Wyo., Sept. 6.—A showing of gas was encountered in the Big Sioux test at Irvine, 8 miles southeast of Douglas, at a depth of 1,760 feet. The location is in the northeast corner of section 21-31-70 and the well is Schneider No. 1. The drillers had a fishing job recently but recovered the lost tools after a short shut down.

SKIMMING PLANT SOLD

CORSICANA, Tex., Sept. 6.—Negotiations are under way providing for the sale of the skimming plant of the Crone Refining Co. to Garland C. Kent and associates, producers, according to reports here. The plant was recently temporarily shut down but is to be put in operation again by the new owners. The plant has a skimming capacity of approximately 2,000 bbls.

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It cannot drop the string.

The Dunn Safety Elevator embraces the combined features of speed in operation with absolute safety to life and property.

It is the culmination of years of intensive effort to design and build an elevator in the operation of which these two factors would co-ordinate and function to the maximum degree possible with positive results.

In rotary drilling this elevator operates faster than the third speed. Each operation of opening and closing the elevator door and at the same time unlocking and locking the latch, is combined into one simple, easy movement at the highest possible speed. The safety factor is entirely automatic, and is not dependent upon the latch. When holding the weight of a string of pipe, the door cannot be opened, and therefore, the elevator cannot drop the pipe.

All members of the body, door and latch are interlocking and so designed as to compel perfect co-ordination toward fast and positive operation.

For Safety, Speed, and Service, it must be DUNN

Write today for folders giving complete, detailed description of design, construction, and operation of Dunn Safety Elevators.

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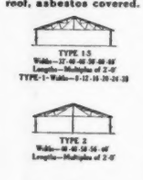
Reinforced Air-Tight Joint
Another Exclusive Truscon Feature

The extreme care given to the construction of Truscon Standard Buildings is shown in the sectional detail of the horizontal joint in wall.

Series "A"
Truscon Copper Steel roof or "Steeldeck" roof, asbestos covered.



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(1) Interlocking horizontal joint has overlapping weathering. (2) Spring pressure holds joints tightly together. (3) Spring stiffening member welded to wall plate extends full width of panel. (4) Substantial copper steel plate gives durability and rigidity to wall.

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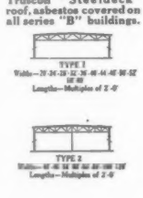

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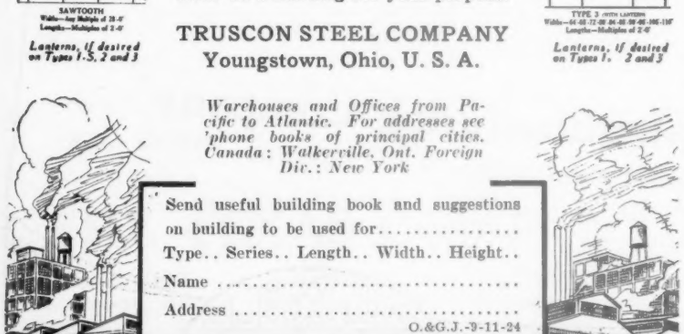

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N. LOUISIANA-ARKANSAS

(Continued From Page 48)

rigging up to drill No. 13 Crossett, in Section 27-21-4e.

Ouachita Parish

The Amalgamated Oil Co. is drilling at 1,680 feet in No. 5 Perry, Section 20-20-5; Ladel and others are drilling at 2,000 feet in No. 26 fee, Section 16-19-5; set 8-inch at 2,175 feet in No. 28 fee, Section 20-19-5 and drilling at 680 feet in No. 29 fee, Section 33-20-5. Montgomery and others are drilling at 1,800 feet in No. 1 fee, Section 6-19-5.

The Palmer Corporation set 10-inch casing at 185 feet in No. 3 Lieber, Section 4-19-5; Pelican Gas & Carbon Co. fishing job at 1,240 feet in No. 1 Shell, Section 18-19-5, Southern Carbon Co. has four rigs running on fee land in Sections 5, 21 and 29-19-5.

The Texas Co. is drilling at 2,000 feet in No. 2 Ladel, Section 11-19-4.

Union Parish

Clark & Melat and others are building derrick for a test on the Feazel land in Section 6-19-2e, 8 miles southeast of Farmerville.

Castello and others are drilling at 2,000 feet in No. 1 Nelson, Section 17-23-1w, 6 miles west of the Oakland production.

West Carroll Parish

The Arkansas Fuel Oil Co. is drilling at 2,715 feet in No. 1 Fiske, Section 8-21-10e.

Columbia County, Arkansas

Two new wells are being started in Columbia County, one in proven territory and the other a wildcat.

The Magnolia Petroleum Co. is rigging up to drill No. 1 Watson in Section 36-15-20, in the heart of production.

Hargis and others are rigging up to drill No. 1 Sauter in Section 12-17-22, 5 miles west of Magnolia.

Arkansas Wildcats—Calhoun County

The Arkansas Fuel Oil Co. is drilling in rock at 2,950 feet in No. 2 Childress, Section 1-15-15.

Drew County

Groves and others are drilling at 2,360 feet in No. 1 Karnes, Section 10-13-6.

Lincoln County

Bennett and others are building derrick for No. 1 Jones, in Section 33-10-6.

Nevada County

Greeson and others set 10-inch casing at 20 feet in No. 1 Lester Mill Co., Section 31-11-20, 12 miles north of the Nevada Pool.

GETTING READY FOR PETROLEUM EXPOSITION

(Continued From Page 36)

emergency hospital in charge of competent physicians and nurses is being fitted up at the grounds. Gas, water, and electricity for power and lighting purposes are being installed in every booth where required.

Three Big Parades

The floats for the three huge parades are nearing completion under the direction of Herbert Barnard, who is designing a float for each of the 12 princesses, representing the 12 major oil producing States. Contests are now under way in each of these States for the selection of the princesses, one of whom will become Queen Petrolia and will be crowned at the Exposition Theater, October 8. Three brilliant street parades have been scheduled. The first will be the Fageant of Princesses, scheduled for 10 a. m. October 2, at which time the princesses will appear in their floats. The Industrial Parade, during the morning of October 7, will be one of magnificence, in which the oil industry will be typified through the display of many beautiful allegorical floats. The third and largest parade of the Exposition will be the Queen's Parade, held on the morning of October 9.

With the work of building and installing the booths and partitions under way in the Texas building, the largest structure on the grounds, the Exposition workmen are starting on the last part of their task which will bring the various buildings to the stage where the exhibits can be received and installed. This part of the work is expected to be in full blast in a few days, and the side track from the Frisco Railway, leading to a dock only a few feet from any of the buildings in the grounds is expected to be kept busy receiving and setting the ponderous machines and articles of equipment in addition to the many smaller exhibits which will be more easily handled. A heavy crane and a large loading dock, formerly used by the Prairie Oil & Gas Co. for handling pipe and machinery, will be utilized for unloading the cars and speeding the work of installing all the exhibits.

Foreign Exhibitors

Near the Madison Avenue entrance is an open space surrounding a flag pole. This spot has been given excellent care and forms an attractive bit of landscaping for the Exposition grounds.

At the offices of the Exposition, letters are being received daily advising the officers that additional representatives of various foreign oil producing countries can be expected to attend the big show. Several foreign manufacturers have reserved space for their exhibits and others who have exhibited interest are expected to be present.

"The supply companies and other exhibitors have informed Mr. McIntyre and the other officers of the Exposition that they have prepared their exhibits and are awaiting the proper time for shipping them to Tulsa. A number are now on the road from more distant points. Many special devices of new design will be exhibited, among which will be a miniature natural gasoline plant in operation, supplied by the members of the Association of Natural Gasoline Manufacturers. In many other ways the exhibits at the 1924 Exposition will surpass anything that has ever been attempted by the oil industry. Many exhibitors declared that they were hurried in their attempts to rush an exhibit to the 1923 show, and several started their plans for the coming show a few days after the close of the 1923 Exposition. As a result, the quality of the exhibits at the 1924 Exposition is expected to be far better than the 1923 exhibits. The 1924 International Petroleum Exposition and Congress is expected to be really representative of the oil industry.

NORTH CENTRAL TEXAS

(Continued from Page 56)

No. 1 Scott, rigging to pump and test sand showing oil at 1,210 feet.

Montague County—Drilling: Guarantee Fuel Oil Co.'s No. 1 Jordan, drilling in hard brown lime at 2,655 feet; The Texas Co.'s No. 2-A Gist, changing gate valve at 668 feet; Mascho Oil Co.'s No. 1 Howard, running 5⅛-inch casing at 3,600 feet; Wood and others' No. 2 Summerour, drilling in lime at 1,755 feet.

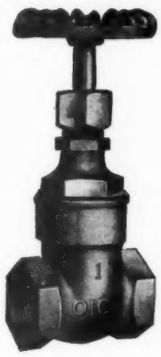
Shackelford County—Drilling: Cerf and others' No. 1 Poindexter, drilling at 2,365 feet; Landreth Oil Co.'s No. 3 Lynch, drilling in broken lime at 2,660 feet. McMahon and others' No. 2 Lynch, sidereaming 6-inch casing at 3,135 feet.

Mitchell County—Drilling: Harris and others' No. 1 Brown, showing oil and shut down at 370 feet; Humphrey Oil Co.'s No. 1 Coleman, drilling at 1,530 feet; California Co.'s No. 10 Morrison, 1,160 feet of oil in hole and drilling in black lime at 2,970 feet; No. 11 Morrison, swabbing 20 bbls. a day and not yet completed at 3,040 feet; No. 6 Abrams, set and cemented 8-inch casing at 2,823 feet; Tidal Oil Co.'s No. 1 Handley, fishing for tools after shot and showing for 50-bbl. well at 3,075 feet.

NEW OIL CAPITAL

Twenty-six new petroleum companies were organized during the month of Auguset, with a total capital of $67,475,000. This compares with 31 companies formed in July, with a total capital of $57,135,000, and 33 companies in June, with an aggregate capitalization of $20,574,000. The largest of the new corporations was the American Maracaibo Co., Delaware, with a capitalization of $50,000,000.

Ohio Injector Company Valves



"O. I. Co." Brass Gate Valve

This valve is of the solid wedge type and is made of the same high grade steam metal that is used in making locomotive appliances. All threads are extra long. Stem is of large diameter and has greater thread contact with wedge when valve is closed than is usual. Acme standard thread on stem gives both strength and ease of operation. Guaranteed for 200 lbs. steam pressure.

If Continental Sells It There Is No Better

"O. I. Co." Standard Gate Valve

The CONTINENTAL SUPPLY COMPANY can recommend to the Oil Industry without reservation, the Ohio Injector Company's comprehensive line of high grade valves, for which we are exclusive distributors to this industry.

This company is turning out an exceptionally satisfactory and durable product Those who have had unsatisfactory experience with valves of inferior workmanship, as evidenced by loose fits in the threads and leaky seats, will appreciate the expert craftsmanship which has been put into the designing and manufacturing of "O. I. Co." Valves.

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Nickel Bronze Disc Valve

This globe valve is one of the "O. I. CO." complete line of globe, angle, and check valves of metal-seat type. These valves are made of highest grade steam metal. Discs are of a special nickel bronze developed to best withstand the action of high pressure steam and the mechanical wear to which these parts are subjected. In severe service these discs will retain a perfect seat without regrinding several times as long as discs of steam metal.

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CONTINENTAL

Mid-Continent Refinery Runs Increase

Oklahoma Crude Runs to Stills Increase 16,800 Barrels Daily and North Central Texas 4,950 Barrels. Kansas and Arkansas Runs Less

By C. O. Wilson

Forty-four refineries in the Mid-Continent area—Oklahoma, North-Central Texas, Kansas, North Louisiana and Arkansas—were running more crude oil to their stills on September 1 than on August 1, according to the monthly review of The Oil and Gas Journal. For the same two dates 37 plants were running less crude than on September 1 than on August 1 with the operations of 38 plants unchanged.

As a result of these shifts in operations Mid-Continent refiners the first of September were running a total of 15,225 bbls. more crude to stills than on the same date of the previous month. Oklahoma refinery runs increased 16,800 bbls. and North-Central Texas 4,950 with a decrease of 4,475 bbls. in Kansas and a 2,050 decrease in Arkansas. Total runs to the stills of North Louisiana refiners on September 1 were exactly the same as on August 1.

The total additional runs for the Mid-Continent refiners represents an approximate increase of 4½ per cent and this contrasts with the previous month's report which showed that on August 1, refiners of the same area were running 11,350 less crude to stills than on July 1, or a decrease of 3½ per cent. This means that present runs are 3,875 bbls. more than on July 1.

Smaller Than Expected

Although general market conditions do not warrant any increase in refinery operations anywhere the September increase is not so large as expected by many. Several in close touch with Mid-Continent refinery operations predicted that when Mid-Continent crudes were reduced in July there would be a marked tendency to increase refinery runs. However, the folly of increasing runs at this time has been stressed by the refiners themselves and this agitation is responsible for the fact that a larger increase has not taken place. With the lower crude prices and a somewhat more favorable market on refined products it is probable that for the first time this year, many plants in the Mid-Continent find themselves operating profitably. But despite this fact many plants have refused to increase their runs although the additional crude is available.

Ahead of Last Year

In this connection attention is called to Table No. 3 which shows that the Mid-Continent refiners are continuing to run ahead of their operations of last year. The increase on September 1 was 85,525 bbls. over September of last year. Every area is running more crude oil to stills than it was a year ago with the exception of Arkansas which shows a 1,900-bbl. decrease. This increase is largely due both to additional plants and the enlarged operations of a few. The new plant of the Roxana Petroleum Corp. which is running 12,000 bbls. of crude oil to stills daily is the largest of the new plants the past year. Market developments in the Mid-Continent area this year have been similar to conditions last year but refiners have maintained their plant operations consistently at higher levels.

In January of 1923 Mid-Continent refiners were running 344,377 bbls. of crude daily to their stills. These runs were maintained until the spring months when they declined rapidly and, as shown in the table, were only running 262,600 bbls. daily to their stills on September 1 of that year. This year, however, refiners were only running 303,225 bbls. daily to their stills on January 1. Due to a favorable market condition these runs were increased to 355,690 bbls. daily by April 1. There have been declines in operations since that time but as shown in Table 1, they were still running 348,125 bbls. daily on September 1, 1924.

MID-CONTINENT REFINERY OPERATIONS
TABLE NO. 1
Based on plants which have been in operation during the past year.

	No. of Plants	Capacities	Plants Op. Sept. 1, '24	Dy. Runs Sept. 1, '24
Oklahoma	59	256,500	47	149,000
North Central Texas	43	163,250	36	88,650
*Kansas	28	126,800	21	69,075
North Louisiana	6	33,500	6	27,300
Arkansas	15	39,950	9	14,100
Totals	151	620,000	119	348,125

*Includes three Missouri plants.

TABLE NO. 2
Based on operations of all plants as of September 1, 1924, and August 1, 1924. (Capacities includes all plants regardless of how long they have been shut down).

	No. of Plants	Capacities	Plants Op. Sept. 1,'24	Dy. Runs Sept. 1,'24	Plants Op. Aug. 1,'24	Dy. Runs Aug. 1,'24	Increase Sept. 1,'24
Oklahoma	103	354,100	47	149,000	49	132,200	16,800
N. Central Texas	72	237,350	36	88,650	36	83,700	4,950
†Kansas	39	138,100	21	69,075	20	73,550	*4,475
North Louisiana	17	35,000	6	27,300	6	27,300	.....
Arkansas	16	41,700	9	14,100	8	16,150	*2,050
Total	248	816,830	119	620,000	119	332,900	15,225

*Decrease. †Includes four Missouri plants.

TABLE NO. 3
Based on operations of all plants as of September 1, 1924, and September 1, 1923.

	No. Plants Sept. 1, '23	Capacity	Plants Op. Sept. 1, '24	Daily runs Sept. 1, '23	Daily Dec. Comp'd to Sept. 1, '24
Oklahoma	109	368,500	56	132,200	16,700
North Central Texas	67	216,850	37	57,600	31,050
*Kansas	42	130,900	22	42,700	26,375
North Louisiana	18	36,160	11	14,000	13,300
Arkansas	20	48,850	4	16,000	†1,900
Total	256	801,360	130	262,600	85,525

†Increase. *Includes four Missouri plants.

Oklahoma

In Oklahoma seven plants were running less crude to their stills on September 1 than on August 1 and 23 were running more crude with 17 unchanged. Among the plants whose runs were increased are those of Barnsdall Refining Co., Barnsdall, from 4,000 to 4,700 bbls.; Champlin Refining Co., Enid, from 6,200 to 12,000 bbls.; Marland Refining Co., Ponca City, from 10,500 to 12,000 bbls.; Waite Phillips Co., from 4,000 to 5,000 bbls. Tidal Refining Co. from 3,750 to 5,600 bbls. These were principal increases. Cosden & Co. was only running 1,000 bbls. more crude to stills on September 1 than on August 1, although during the month its runs were as high as 25,000 bbls. daily.

During the month, the plant of the Sinclair Refining Co., located at Cushing, was started up at about half capacity. This plant has been shut down for several months. Offsetting this was the shut down of the plant of the Sapulpa Refining Co. (Mutual Oil Co.) at Sapulpa. The plant is shut down for an indefinite period. It is known that the Mutual Oil Co. contemplates extensive improvements at the plant but it is not known when this work will start. Another plant which started up during the month was that of the Tonkawa Petroleum Co., located at Tonkawa. This plant is skimming around 600 bbls. daily. It had been shut down for several months. The small plant of the Daisy Bell Refining Co. at Wilson was shut down on the first of the month. This was also true of the Coleman-Nelson plant at Tulsa. Both shut downs are temporary.

North-Central Texas

There were no important chnages in North-Central Texas operations. During the month 18 plants decreased their runs and 14 increased. The plants of the American Oil Corp. at Pioneer and that of the Tiger Refining Co. were shut down during the month. Both are small plants supplying local trade. The Humble Oil & Refining Co. has boosted the runs of its Hearne refinery from 6,500 to 9,000 bbls. daily and the runs of the Panhandle Refining Co. at Wichita Falls are now 5,000 bbls. daily. The Tidal Western Co. has also increased the runs of its Burkburnett plant.

Kansas

In Kansas five companies reduced their refinery runs and six increased. After a shut down of several months the Miller Petroleum Co. is again operating its refinery at Chanute. It is handling about 600 bbls. of crude daily. The Roxana Petroleum Corp. has increased the runs of its Arkansas City plant from 11,000 to 12,000 while the Skelly Oil Co. has reduced from 10,000 to 8,500 bbls. daily. The Standard of Kansas has reduced its runs at Neodesha to 6,000 from 8,000. The Derby Oil & Refining Co. has also reduced its runs about 50 per cent.

Arkansas

In Arkansas the Lion Oil & Refining Co. and the Kettle Creek Refining Co. have reduced their runs slightly but these are the only important changes in the State. Crude is probably more difficult to obtain in that State than any other section of the Mid-Continent. Buyers are paying a small premium in a few instances.

North Louisiana

The only change in the North Louisiana operations was 500-bbl. increase in the total runs of the two plants of the Caddo Central Oil & Refining Co. and this was offset by a 500-bbl. increase at the topping plant of The Texas Co. located at Ardis.

REFINING OPERATIONS IN OKLAHOMA
(Plants which have been in operation during the past year.)

Name and location—	Daily Capacity	Runs Sept. 1	Runs Aug. 1
Allied Refining Co., Okmulgee	1,800	700	1,000
Anderson-Prichard, Cyril	1,200	750	750
Barnsdall Refining Co., Barnsdall	5,000	4,700	4,000
Bolene Refining Co., Enid	5,000	4,100	4,000
Cameron Refing Co., Ardmore	3,000	3,000	2,800
Canfield Refining Co., Yale	500	100	100
Champlin Refining Co., Enid	16,000	12,000	6,200
Chestnut & Smith Corp., Sand Springs	5,000	Shut down	Shut down
Coleman-Nelson Corp., West Tulsa	2,000	Shut down	250
Cosden & Co., West Tulsa	35,000	17,000	16,000
Cushing Refining & Gasoline Co., Cushing	2,000	1,000	500
Cushing Refining & Gasoline Co., Blackwell	1,000	1,100	600
Daisy Bell Petroleum Co., Wilson	2,000	Shut down	50
Empire Refineries, Inc., Cushing	7,000	5,250	5,250
Empire Refineries, Inc., Okmulgee	2,500	2,500	2,500
Empire Refineries, Inc., Ponca City	6,000	5,500	5,500
Garber Refining Co. (Omar)	3,000	1,700	1,500
Gilmer Oil Co., Ringling	800	Shut down	Shut down
Globe Oil & Refining Co., Blackwell	5,000	4,500	2,500
Hewitt Refining Co., Hewitt	1,800	650	750
Illinois Oil Co., Cushing	2,500	1,400	1,500
Imperial Refining Co., Ardmore	6,000	4,500	4,200
Johnson Oil Refining Co., Cleveland	4,000	2,800	3,200
Lorraine Refining Co., Bristow	4,000	2,000	2,000
Marland Refining Co., Ponca City	15,000	12,000	10,500
Nyansa Refining Co., Wilson	3,500	1,000	750
Oil State Refining Co., Enid	2,000	850	700
Oil State Refining Co., Allen	600	Shut down	Shut down
Okla--Tex. Refining Co. (Sagamore), Grandfield	2,000	2,000	2,400
Phillips Co. (Waite), Okmulgee	6,000	5,000	4,000
Peppers Gasoline Co., Covington	1,000	500	400
Pierce Oil Corp., Sand Springs	10,000	Shut down	Shut down
Producers & Refiners Corp., West Tulsa	7,000	4,500	4,500
Producers & Refiners Corp., Blackwell	3,000	1,000	1,000
Producers & Refiners Corp. (Polar), Sapulpa	2,000	Shut down	Shut down
Pure Oil Co., Ardmore	6,500	2,000	Rerun
Pure Oil Co., Cushing	5,000	3,600	4,000
Pure Oil Co., (O. P. & R. Co., Muskogee	3,500	2,000	1,800
Riley Petroleum Co., Bristow	800	300	300
Rock Island Refining & Pipe Line Co., Duncan	2,000	2,000	1,400
Roland Oil Co., Bristow	1,500	700	900
Sapulpa Refining Co., Sapulpa	7,000	Shut down	3,200
Shaffer Oil & Refining Co., Cushing	6,000	5,500	5,500
Southwestern Oil Corp., Enid	1,500	Shut down	Shut down
Superior Oil Corp., Grandfield	3,000	Shut down	Shut down
Sun Co., Yale	3,000	2,000	2,000
Sinclair Refining Co., Cushing	6,000	2,500	Shut down
Sinclair Refining Co., Muskogee	1,000	700	650
The Texas Co., West Tulsa	10,000	9,250	9,000
Texas Pacific Coal & Oil Co., Wynnewood	2,500	1,200	1,200
Tidal Refining Co., Drumright	5,000	5,600	3,750
Transcontinental Oil Co., Boynton	2,500	1,800	2,000
Transcontinental Oil Co., Bristow	5,000	4,500	4,500
Tonkawa Petroleum Co., Tonkawa	2,500	650	Shut down
Turley Ref. Co. (formerly Home Pet. Co., Okla. City	2,500	Shut down	Shut down
Union Oil & Refining Co., Grandfield	2,000	Shut down	Shut down
Whalebuck Production Co., Oklahoma City	1,500	400	400
Western Oil Corp., Beckett	1,500	1,000	900
Yale Oil Corp., Yale	1,500	900	900
Total	256,500	149,000	132,200

REFINERY OPERATIONS IN NORTH-CENTRAL TEXAS
(Plants which have been in operation during the past year.)

Name and location—	Daily Capacity	Runs Sept. 1	Runs Aug. 1
American Oil Corp., Pioneer	2,000	Shut down	400
American Refining Co., Wichita Falls	7,000	5,100	5,500
Boner, H. E., Burkburnett	500	Shut down	Shut down
Boardman Oil Co., Wichita Falls	750	150	250
Buffalo Refining Co., Sherman	500	200	200
Clayton Oil & Refining Co., Dallas	4,500	3,700	2,400
Cross (H. H.) Refining Co., Corsicana	2,500	900	1,200
De Leon Refining & Pipe Line Co., De Leon	1,000	200	525
Griswold Oil Co., Wichita Falls	3,000	2,300	2,400
Gulf Refining Co., Fort Worth	15,000	6,200	6,800

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Humble Oil & Refining Co., Burkburnett	1,500	1,400	1,500
Humble Oil & Refining Co., Hearne	10,000	9,000	6,500
Interstate Gasoline Products Co., Iowa Park	2,000	Shut down	Shut down
Iowa Park Producing & Refining Co., Iowa Park	1,500	1,300	1,800
Lone Star Refining Co., Wichita Falls	4,000	Shut down	Shut down
Miller Petroleum Co., Wichita Falls	3,000	2,100	2,200
Magnolia Petroleum Co., Fort Worth	12,000	6,000	5,600
Magnolia Petroleum Co., Corsicana	10,000	3,800	3,200
Megargel Refining Co., Megargel	1,000	300	500
Mexia Oil & Refining Co., Mexia	600	100	100
Noble Oil & Gas Co., Burkburnett	5,000	2,500	3,200
Olney Oil & Refining Co., Olney	1,000	250	250
Oriental Refining Co., Dallas	6,000	550	800
*Oriental Refining Co. (Trinity), Dallas	5,000	3,800	2,500
Orient Petroleum Co., Wichita Falls	2,000	750	1,000
Paris Refining Co., Paris	500	250	100
Panhandle Refining Co., Wichita Falls	4,500	5,000	3,500
Prairie Refining Co., Wichita Falls	500	Shut down	Shut down
The Petroleum Corp., Electra	2,000	850	1,000
Primrose Refining Co., Wichita Falls	1,500	700	1,000
Producers Refining Co., Gainesville	5,000	4,300	4,500
Skelly Oil Co. (formerly Nortex Ref.), Burkburnett	2,000	Shut down	Shut down
Star Refining Co., Fort Worth	1,500	650	500
State Refining Co., Dallas	1,000	Shut down	Shut down
Sunshine State Oil & Refining Co., Wichita Falls	2,500	1,400	900
Tidal Western Refining Co., Burkburnett	3,000	2,500	1,000
The Texas Co., Dallas	15,000	8,000	7,500
Texhoma Oil & Ref. Co., Wichita Falls	7,000	5,800	5,500
Tiger Refining Co., Breckenridge	1,500	100	Shut down
Transcontinental Oil Co., Fort Worth	5,000	3,000	3,200
Travis Refining Co., Burkburnett	1,000	300	200
Waggoner Refining Co., Electra	3,400	2,500	2,500
White Eagle Oil & Ref. Co., Fort Worth	5,000	2,700	3,600
Total	163,250	88,650	83,050

REFINING OPERATIONS IN KANSAS

(Plants which have been in operation during the past year.)

Name and location—	Daily Capacity	Runs Sept. 1	Runs Aug. 1
Commonwealth Oil & Ref. Co., Moran	1,800	350	350
Derby Oil & Ref. Co., Wichita	6,000	2,200	4,500
El Dorado Refining Co., El Dorado	3,500	2,000	2,000
Frontier Refining Co., Hutchinson	2,500	Shut down	Shut down
Grant Oil Co., Augusta	500	400	400
Golden Rule Refining Co., Wichita	1,000	600	500
Industrial Refining Co., El Dorado	1,500	Shut down	Shut down
Kansas-Texas Petroleum Co., Wichita	1,500	Shut down	Shut down
Kanotex Refining Co., Arkansas City	4,500	5,000	4,800
Kansas Oil Refining Co., Coffeyville	1,500	350	350
Kansas City Refining Co., Kansas City	4,000	3,600	3,600
Moore Refining Co., Arkansas City	6,000	4,000	5,000
Miller Petroleum Co., Humboldt	2,000	600	Shut down
National Refining Co., Coffeyville	10,000	4,900	4,900
Peerless Oil Refining Co., Chanute	3,500	1,600	1,500
Red Bird Refining Co., Fredonia	200	75	100
Richardson Ref. Co., El Dorado	1,500	Shut down	Shut down
Roxana Petroleum Corp., Arkansas City	15,000	12,000	11,000
Sinclair Refining Co., Coffeyville	6,500	4,800	4,800
Sinclair Refining Co., Argentine	8,000	4,000	4,000
Skelly Oil Co., El Dorado	14,000	8,500	10,500
Sterling Oil & Ref. Co., Wichita	5,000	Shut down	Shut down
Standard Oil Co. of Kansas, Neodesha	12,000	6,000	8,000
Vickers Petroleum Co., Potwin	1,800	2,200	1,800
White Eagle Oil & Ref. Co., Augusta	7,500	5,000	5,000
Southern Missouri Group—			
Interstate Refineries, Inc., Centropolis	1,500	Shut down	Shut down
Marshall & Co., Sheffield	2,500	Shut down	Shut down
Wilhoit Refining Co., Joplin	1,500	900	950
Total	126,800	69,075	68,800

REFINING OPERATIONS IN ARKANSAS

(Plants which have been in operation during the past year.)

Name and location—	Daily Capacity	Runs Sept. 1	Runs Aug. 1
Cross Refining Co., Smackover	2,000	1,400	1,500
Continental Oil & Gas Co., Texarkana	750	400	400
Four States Refining Co., Texarkana	2,000	200	200
Grison Refining Co., El Dorado	750	Shut down	Shut down
Home Oil & Ref. Co., Camden	750	700	750
Hot Springs Refining Co., Hot Springs	500	Shut down	Shut down
Houston Oil Co., Camden	5,000	Bldg.	Bldg.
Jones & Co., R. C., El Dorado	1,000	Shut down	Shut down
Kettle Creek Refining Co., Pearson	4,000	2,800	3,500
Lion Oil & Ref. Co., El Dorado	12,000	5,500	6,500
Ouachita Valley Refining Co., El Dorado	1,500	Rerun	Rerun
Pine Bluff Refining Co., Pine Bluff	2,000	500	600
Root Refineries, El Dorado	3,000	2,000	2,000
Shippers Petroleum Co., El Dorado	700	Shut down	Shut down
Union Pipe Line & Ref. Co., El Dorado	4,000	600	700
Total	39,950	14,100	16,150

REFINING OPERATIONS IN NORTH LOUISIANA

(Plants which have been in operation during the past year)

Name and location—	Daily Capacity	Runs Sept. 1	Runs Aug. 1
Caddo Central Oil & Ref. Co., Shreveport	3,500	3,000	3,500
Caddo Central Oil & Ref. Co., Shreveport	7,000	5,000	5,000
Louisiana Oil Ref. Corp., Shreveport	10,000	10,000	10,000
*Louisiana Oil Refining Corp., Bossier	3,000	800	800
Shreveport Producing & Ref. Co., Shreveport	5,000	4,000	4,000
*The Texas Co., Ardis	5,000	4,500	4,000
Total	33,500	27,300	27,300

*Topping.

SCENIC BEAUTY IN WESTERN OIL FIELDS

(Continued from Page 21)

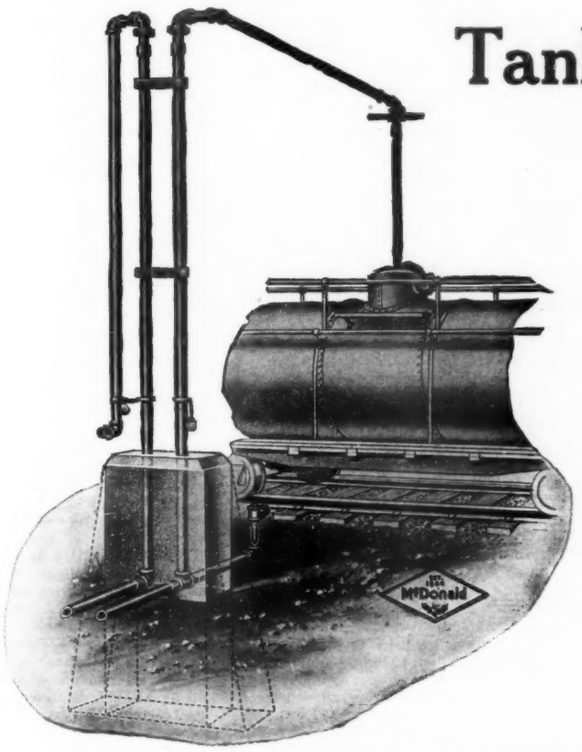
region and will probably exert a powerful influence on the action of the Prairie Pipe Line Co. with regard to its projected line from Craig to Parco, Wyo. The Texas Production Co.'s well on the Hamilton Dome has fallen off steadily, although not very rapidly, being down to a daily average of little more than 1,900 bbls. last week and doubts were freely expressed in various reliable quarters that work would proceed any further on the line until another field was discovered to supply the necessary amount of crude.

A picture of the Yarg Producing & Refining Co.'s well on the Iles Dome is shown on page 24 of this issue and portrays the general appearance of the structure. The Yarg well, according to latest reports, struck water in the Frontier sand at 2,516 feet, and drilled 34 feet in the sand, but was going ahead to the Dakota, which was the original objective.

Every oil region in the United States has its own set of geological names, many of which are so much Greek to readers in other parts of the country, and local writers refer to them as glibly as if all oil men everywhere had made a close study of the stratigraphy referred to.

The ordinary hard-working oil man in the Mid-Continent and in other sections of the oil world outside of the Rocky Mountain region, as well as other students of the situation in Colorado, Wyoming and New Mexico, read about the Dakota sandstone, the Mesaverde formation, the Mancos shales and the various and sundry subdivisions of these mystifying terms and haven't the vaguest idea of what the writer is talking about. Every oil man can't be a geologist even if he should desire to achieve a speaking acquaintance with the Eocene, Oilgocene and so forth, and it is for the purpose of presenting a general picture of the underground conditions in northwestern Colorado that the accompanying sketch is presented.

The reasons for the excessive depth to the Dakota sandstone are clearly shown on the chart, although on many domes the Mesaverde and overlying formations were apparently eroded before the deposition of the Tertiary formations.



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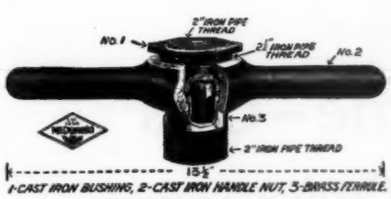

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NEW ORLEANS AND BATON ROUGE SHIPMENTS HIGHEST IN AUGUST

By N. O. Fanning

NEW YORK, Sept. 8.—Shipments of oil by water from New Orleans and Baton Rouge district to the Atlantic Seaboard during August, 1924, reached the highest point in more than a year, according to estimates made by The Oil and Gas Journal, based on capacity of tankers engaged in that trade. The total amount shipped for August is estimated at 3,286,000 bbls., a daily average of 104,000 bbls. This compares with a previous high of 2,390,000 bbls., or 77,000 bbls. daily, during July, and with 2,065,000 bbls., or 67,000 bbls. daily during June, 1924.

Shipments to the Atlantic Seaboard from all Gulf Coast ports combined during August are estimated at 9,667,000 bbls., or 310,000 bbls. daily, against a high point for the year of 9,872,000 bbls. or 318,000 bbls. daily, in July.

Receipts of oil at Atlantic ports from the Pacific Coast totaled 3,923,000 bbls. in August, or 127,000 bbls., according to The Oil and Gas Journal estimates. This is a daily average of 127,000 bbls., and compares with 85,000 bbls. daily in July. The high point this year was in February, when receipts from California totaled 5,111,000 bbls., or 175,000 bbls. daily.

Imports at Atlantic Coast ports during August amounted to 2,591,000 bbls., a daily average of 84,000 bbls., against 3,593,000 bbls., or 114,000 bbls. during July.

Aggregate receipts from oil sources in August are estimated at 16,181,000 bbls., a daily average of 521,000 bbls. July receipts were 16,113,000 bbls., or 517,000 bbls. daily, while in June of this year receipts were 17,336,000 bbls., a daily average of 571,000 bbls., the highest for the year.

Receipts of oil at Atlantic Coast ports are said to consist largely of crude oil and fuel oil, with fuel oil having a slight preponderance. Imports consist largely of heavy residuum, which is mixed in tanks at Atlantic Coast distributing points with light fuel oil from California and such fields as Smackover in the Mid-Continent.

Of course some gasoline and other oil products are shipped in bulk to Atlantic Seaboard ports, but the bulk of such products are said to be handled by tank car.

Receipts From Mexico

Oil receipts from Mexico during August were 2,281,000 bbls., or 74,000 bbls. daily, the smallest for any month this year, not excepting January, when receipts were 2,468,000 bbls., or 79,000 bbls. daily, the previous low point for the year.

The decline in receipts from Mexico is said to be due to the drop in light oil production. Light fuel oil from California and the Mid-Continent is being used to replace this, as the heavy Panuco oil, production of which has increased materially, is too heavy for general use here.

Standard Oil Co. of New Jersey, Pan American Petroleum & Transport Co. and others are bringing light California residuum to the Atlantic Seaboard in large quantities.

Record This Year

The following table shows estimated in barrels receipts of crude and refined oil at Atlantic Seaboard ports from various districts for the first eight months of 1924:

From:	Gulf Coast	Pacific Coast	Imports	Total
August	9,667,000	3,923,000	2,591,000	16,181,000
July	9,872,000	2,648,000	3,593,000	16,113,000
June	9,194,000	3,963,000	4,179,000	17,336,000
May	8,530,000	3,829,000	4,428,000	16,787,000
April	7,878,000	4,323,000	3,729,000	15,930,000
March	6,271,000	4,255,000	4,059,000	14,585,000
February	5,066,000	5,111,000	3,153,000	13,330,000
January	4,579,000	4,938,000	2,468,000	11,985,000
Total	61,057,000	32,990,000	28,200,000	122,247,000

More than half of the oil receipts by water at Atlantic ports were from the Gulf Coast.

DIESEL LOCOMOTIVE AND CRUDE OIL AUTO

The Exchange Telegraph Co., the European news agency, states that Diesel locomotives are to run on the Russian railways. The London Oil News says there is no more suitable country for this development (it is hardly an experiment, because a Diesel-type locomotive was running in Germany before the war). With its long runs, many of them to districts remote from either oil or coal, the Russian railway system is unusually well adapted for this form of traction, because the oil can be carried practically any distance without waste or loss of time in loading and transferring.

The Telegraph company also reports that two German motor works jointly have produced a 6-18 horsepower car which it is claimed can be run on crude oil at a cost of 75 cents per 100 miles. That also, says the London publication, is a natural development of modern mechanical engineering; "it has already been proved feasible, and we may expect to see a type of vehicle evolved capable of using this heavy fuel without its present drawbacks—messiness, difficulty in starting, and some discomfort. But we are in early stages as yet."

"GAS" DISPLACES GONDOLIERS

The municipal authorities of Venice have decreed that in the near future all the gondolas of that city shall be propelled by a gasoline-driven motor instead of by the gondolier standing in the stern and using a single oar and a mysteriously simple thole pin.

CALIFORNIA RECEIPTS AND PETROLEUM EXPORT

Receipts of California crude and refined oils at Atlantic and Gulf Coast ports for the week ended August 30 totaled 958,000 bbls., a daily average of 136,857 bbls., against 1,083,000 bbls., a daily average of 154,714 bbls. for the week ended August 23.

	Wk. End. Aug. 30
At Atlantic Coast Ports—	
Baltimore	90,000
New York	713,000
Philadelphia	80,000
Others	75,000
Total	958,000
Daily average	136,857
At Gulf Coast Ports—	
Total Atlantic and Gulf Coast Ports	958,000
Daily average	136,857

According to figures collected by the American Petroleum Institute imports of crude and refined oils at the principal ports for the week ended August 30 totaled 1,619,000 bbls., a daily average of 231,286 bbls., compared with 1,945,000 bbls., a daily average of 277,857 bbls. for the week ended August 23.

	Wk. End. Aug. 30
At Atlantic Coast Ports	60,000
Baltimore	135,000
Boston	306,000
New York	199,000
Philadelphia	276,000
Others	
Total	976,000
Daily average	139,143
At Gulf Coast Ports—	
Galveston district	493,000
New Orleans and Baton Rouge	122,000
Port Arthur and Sabine district	156,000
Tampa	20,000
Total	743,000
Daily average	106,143
At All U. S. Ports—	
Total	1,619,000
Daily average	231,286

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REFINING AND MARKETING

Gasoline Rate War Cuts Tampico Price to 12 Cents Gallon

TAMPICO, Mex., Sept. 8.—For the first time in the history of automobiles in Tampico, and anything else that uses gasoline, the users thereof are enjoying cut rates. In short, there is a gasoline "war" on here at this writing. Gasoline is being sold at service stations for 6 centavos the liter, which means say a trifle less than 12 cents (U. S. C.) the gallon. A short while ago it was announced that Cia. Mexicana-Holandesa, La Corona, S. A., (Royal Dutch Shell) was entering the local field as a purveyor of gasoline. It is charged that this company precipitated the "war." Be this as it may, a little review will be of interest.

Prior to the entry of the Hausteca Petroleum Co. as a distributor of gasoline to local service stations, this business had been in the hands of the Pierce Oil Corp., and of the Mexican Eagle Oil Co., Ltd., now a sort of second cousin to the Corona. Then the Huasteca Petroleum Co., entered, and while it is true prices of gasoline to auto users had been reduced from the exceptional high level of 1920—the prehistoric days of come-easy-go-easy—nothing like the present drastic cut had even been dreamed of. The "war" is still on—to the delight of the automobile owner, and anyone else that uses gasoline.

The only other company doing a service station business is the Texas Co., which has worked up quite a trade with its well-known Port Arthur product. The Corona Co. has just announced that it is coming into the local market with its Shell brand of lubricants as well as gasoline. Mexican-Eagle Oil Co., and Pierce Oil Corp., are the only local refineries offering lubricants, although the Texas Co. has worked up quite a business not only here in Tampico but in other cities in Mexico with its lubricants. Sinclair also offers lubricants here in a small way. Lubricant users are wondering whether the price of lubricating oil will be subjected to a term of revision downward when the Shell products get on the market.

The strike of some 1,500 native employes of the Huasteca Petroleum Co. at its terminals and refinery here continues. It may end quickly and it may not. The terminal is closed now as well as the refinery. No vessels are loading. Conferences looking to a settlement are being held, but thus far nothing really tangible has resulted.

I. C. C. RATE HEARING FT. WORTH, OCTOBER 15

A hearing of the complaint of north Texas refiners filed recently in which they allege discrimination in certain freight rates to western trunk line territory, will be held at Fort Worth, Tex., on October 15, before an examiner of the Interstate Commerce Commission. The north Texas refiners, through an organization known as the North Texas Petroleum Traffic Bureau allege in their complaint that present rates from Oklahoma and Kansas to western trunk line territory are unfair to refiners located in the north Texas area. They also allege that the rates are unreasonably high.

A similar complaint has been filed by eight Oklahoma refiners in which they allege that the rates from Kansas and north Texas to western trunk line territory discriminate against the Oklahoma companies. Cosden & Co., Barnsdall Refining Co. and Tidal Refining Co. are among the complainants in this case.

DISCRIMINATION IN EXPORT RATES CHARGED BY THE TEXAS COMPANY

Export rate matters in the Mid-Continent and adjoining areas were added to the already muddled domestic rate situation through the action of The Texas Co. which has filed complaint with the Interstate Commerce Commission alleging discrimination in certain export rates from interior points to the Gulf Coast ports. The complaint is the latest development in the rate situation and it is conceded in Mid-Continent traffic circles that The Texas Co.'s action throws the export matter wide open as was done with the domestic rates several months ago when Kansas refiners first filed complaint alleging discrimination in domestic rates. The Kansas action was followed by complaints from Oklahoma, North Texas and other groups of refiners so the domestic rate matter now involves all sections.

The complaint of The Texas Co. is based on the contention that export rates to Port Arthur and Port Neches, Tex., are at the present time higher from interior points than they are to other export terminals. The company specifically alleges that the carriers who are the defendants have violated Section 1, 2 and 3 of the Interstate Commerce Act. The Texas Co. has a 45,000-bbl. daily capacity complete refinery at Port Arthur and a 20,000-bbl. daily asphalt plant at Port Neches, both of which are operating at the present time.

At interior points it also has refineries at Dallas, Texas; Tulsa, Okla., and Casper, Wyo. The company is attempting to secure lower rates from these interior plants to its plants located on the coast for export and coastwise movement. The complaint states in part:

That complainant comes into direct and active competition with producers, refiners or manufacturers and marketers of petroleum and its products at points in the States of Arkansas, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Massachusetts, Mississippi, Missouri, New Jersey, New York, Ohio, Oklahoma, Pennsylvania, Rhode Island, South Carolina, Texas, Virginia, West Virginia and Wyoming, and at points in foreign countries hereinafter mentioned in the production, manufacture and sale of petroleum and its products.

That defendants are parties to and concur in Agent E. B. Boyd's I. C. C. A-1470, Agent F. A. Leland's I. C. C. 1680 and Agent A. C. Fonda's I. C. C. Nos. 158 and 149, and Chicago & Northwestern Railway Co.'s I. C. C. 9320 and Chicago & Burlington & Quincy Railroad Co.'s I. C. C. 16037, or reissues, and other tariffs lawfully on file with the Interstate Commerce Commission, all of which are hereby referred to and made a part hereof, and apply the said rates named therein on shipments of petroleum and its products fgrom points in the States of Arkansas, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Missouri, Ohio, Oklahoma, Texas and Wyoming, including Casper, Wyo.; Tulsa, Okla.; and Gates, Tex., to ports located along the Gulf of Mexico of the United States, including Port Arthur and Port Neches, Tex., "for export" to foreign countries named therein, and "for coastwise movement" from ports of the Gulf of Mexico to other points in the United States.

That defendant's rates referred to in paragraph 6 to Port Arthur and Port Neches, Tex., are unjust and unreasonable.

That defendants' rates referred to in paragraph 6 are unjustly discriminatory and are unduly prejudicial to complainant and its traffic and Port Arthur and Port Neches, Tex., and unduly preferential, first of the producers, refiners or

(Continued on Page 128)

GASOLINE GALLONAGE IN OKLAHOMA HIGHER

OKLAHOMA CITY, Okla., Sept. 6.—Records of the oil and gas conservation division of the Corporation Commission show 5,000,000 gallons more gasoline to have been inspected in Oklahoma during May, June and July of this year than during the same months last year. The total for the three months this year is 39,396,262 gallons and for the same period last year 34,304,430 gallons. July inspections for this year exceeded those of last year by over 2,000,000 gallons.

Deputy oil and gas inspectors of the bureau have been advised that after September 1 they are to accept gallonage of tank cars of gasoline that is shown on the invoice and distillation test sheet. This new method of reporting will obviate disagreement between figures submitted to the bureau and to the gasoline tax collection department of the State Auditor's office.

INDIAHOHMA RECEIVERSHIP

ST. LOUIS, Mo., Sept. 8.—The readjustment committee's proposal submitted at the hearing in the bankruptcy case of the Indiahoma Refining Co. here was objected to by federal officers on the ground that the Government had a prior lien for income and other taxes amounting to $708,481. Attorneys representing the receivers, appointed in the State courts prior to the bankruptcy, claimed that the plan would not leave enough assets in the estate to pay State receivers and the attorneys. The matter has been laid over to permit filing of formal objections.

SUNBURST CRUDE FOR INTERNATIONAL PLANT

SUNBURST, Mont., Sept. 5.—Crude from the Kevin-Sunburst Field near here will be used in the operation of the International Refining Co.'s topping plant, which recently was put into operation. One cut of the crude will be made and the tops will be sold to other refineries in the district for further refining while the bottoms will be sold to the Great Northern Railway as fuel oil. The refinery is controlled by L. B. O'Neill and Pat O'Neill. A pipe still will be used and the tankage includes eight 250-barrel run-down tanks for tops and a 1,000-barrel tank for fuel oil.

Completion of the new International Refinery affords additional competition for the Candian refineries just across the border which have been taking about 2,550 barrels of Montana oil daily. The plant of the Imperial Refining Co., Ltd., at Calgary, has been running about 2,400 barrels of Montana oil daily and the Alberta Refining Co.'s plant at Coutts, has been utilizing 50 bbls. daily additional while the standard Refining Co. at Lethbridge uses 100 barrels daily.

SHIP CASPER GASOLINE.

CASPER, Wyo., Sept. 6.—Eight train loads of 60 cars each containing gasoline were loaded out of Casper during August by the Standard Oil Co. (Indiana). The gasoline, making a total of approximately 4,800,000 gallons, was shipped direct to Baton Rouge, La., to be exported on tankers to the Anglo-American Oil Co., London, England.

Credit Managers of Refiners to Meet In St. Louis Sept. 17

Refinery credit managers will hold their Fall Conference at the Jefferson Hotel, St. Louis, Mo., September 17, 18 and 19. Although those in attendance will come primarily from the Mid-Continent section, the invitation to attend is general and the committee in charge of the program already has assurance that credit managers from all parts of the country will be present.

The three days will be devoted to a discussion of problems of refinery credits. Most of the speakers will be refinery credit managers although there will be other speakers at the banquet which will be held the second night. These outside speakers will be announced later.

F. A. Pielsticker, president of the Western Petroleum Refiners Association, has appointed G. G. Woodruff, sales manager of the Roxana Petroleum Corp., W. M. Welsh, vice president of the Tidal Refining Co., Tulsa and P. L. Walsh, sales manager of the Mutual Oil Co., Kansas City, to meet with the credit managers representing the executive committee of the association.

H. M. Edinger, treasurer of the Barnsdall Refining Co., Tulsa, will preside at the business sessions and luncheons to be held daily. The program, to which additions will be made later, follows:

"Cooperation and Interchange Between Credit Managers," A. E. Moore, Sterling Oil & Refining Co., Wichita, Kans.

"Standardization of Terms in the Oil Industry," H. G. McClain, Empire Refineries, Inc., Tulsa.

"Analysis of a Jobber's Statement and Method of Determining Equitable Terms," T. E. Heissig, Pargon Refining Co., Toledo, Ohio.

"Report of the Buffalo Convention of National Association of Credit Men," J. W. Hallman, Sun Oil Co,, Philadelphia, Pa.

"Terms and Discounts on Gasoline," W. T. Brown, Producers & Refiners Corp., Tulsa.

"Terms and Discounts in Lubricating Oils in Barrels and Packages," K. R. Hemkinson, Tide Water Oil Co., New York.

"Service and Bulk Station Credits," M. E. Kleespie, Waite Phillips Co., Tulsa.

"Uses of Drafts and Cost Exchange," G. A. Barnes, White Eagle Oil & Refining Co., Kansas City.

"Credit Managers Service in Relationship to His Customers," John S. Werts, Vickers Petroleum Co., Wichita, Kans.

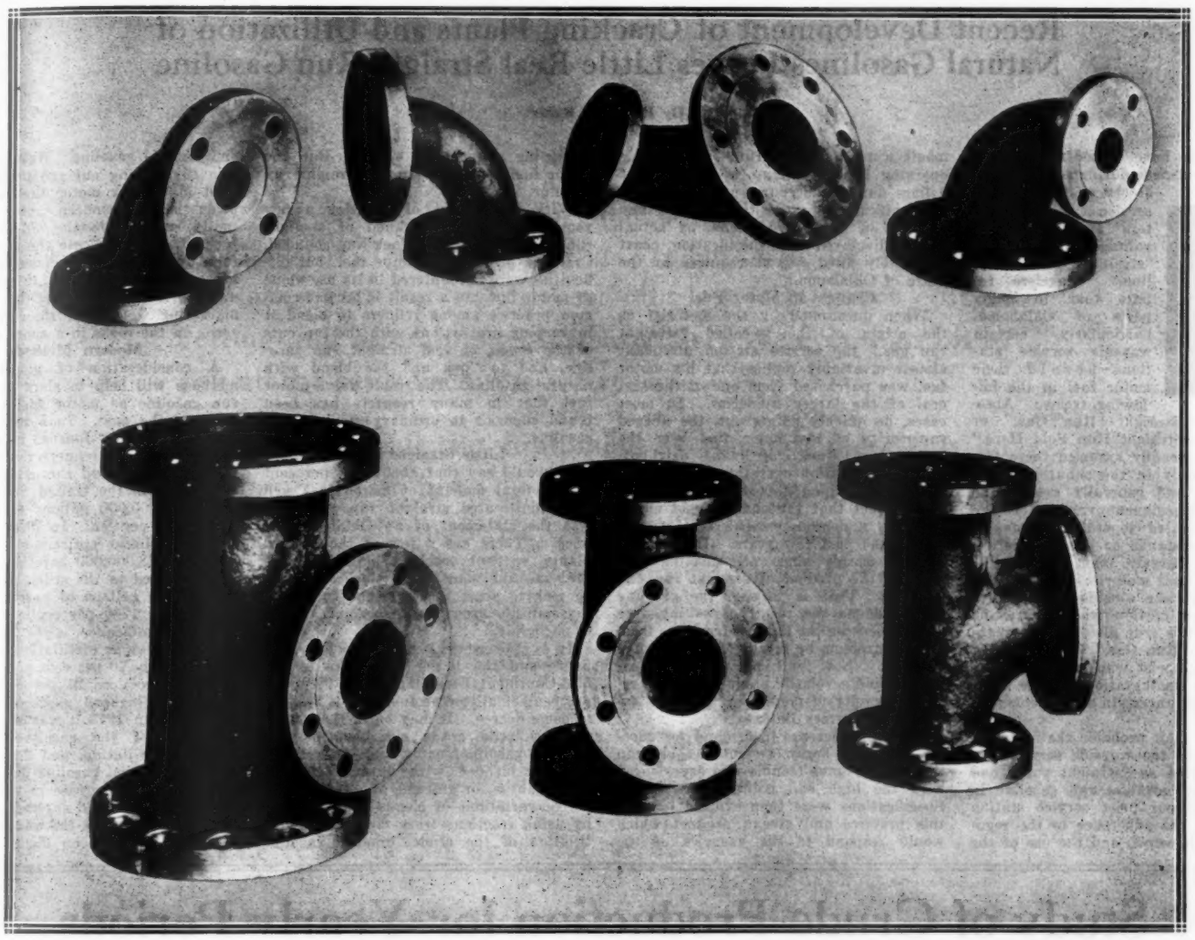
"Practical Use of National Association Interchange Bureaus," Walter Tarlton, secretary Brown Shoe Co., St. Louis, Mo.

GERMANS ON SILICA GEL

In a recent issue of Chemiker Zeitung, Dr. Rudolf Koetschein, of Hamburg, has an article on "Silica Gel Absorption, Particularly in Refining Petroleums." This article is noteworthy for two statements it contains: That the adsorptive properties of silica gel and special methods of preparing the material were independent German discoveries during the late war; and that the principal German method of preparing adsorptive silica gel produces a more generally efficient product than is obtained elsewhere.

FIRE AT SAN ANTONIO PLANT.

SAN ANTONIO, Tex., Sept. 6—Small damage was caused here recently at the refinery of Elljott, Jones & Co., Inc., when two stills caught on fire. The blaze was extinguished quickly and did not interfere with the operation of the plant at any time.



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Character of Gasoline Shows Change

Recent Development of Cracking Plants and Utilization of Natural Gasolines Leaves Little Real Straight Run Gasoline

By Ralph T. Baker

Tourists who have visited many parts of the Mid-Continent during recent weeks assert that numerous service station operators are taking advantage of the term, "straight run gasoline." Travelers report that in many parts of Oklahoma, particularly, certain wayside service stations herald their motor fuel in the following trems: "Absolutely Pure Straight Run Gas." or "Nothing but Straight Run Sold Here."

As may be readily assumed these stations are usually in the suburbs of the larger towns and generally are of the curb or semipermanent variety of dispensaries, operated generally in connection with pop stands or small groceries. They depend largely upon their trade from the stranded motorist who finds his tank empty while a considerable distance from a service station whose wares he recognizes. It is true also, that the caption "Straight Run Gas," is flung in the face of the motorist who has been passing numerous small statioins where a cut rate product of uncertain antecedents was sold.

It is more than probable that most of the gasoline in the wayside service stations, advertised as "straight run," had as little actual straight run gasoline in it as did the cut price service station product. By the adherence to the regulation price, however, and the use of the magic words "straight run," the wayside operator hoped to trap a few unwary dollars during the course of the day. It is significant to note that fewer than one out of 10 such stations, by actual count, displayed the specification chart completely filled out, as required by the State of Oklahoma.

Changes in Motor Fuel

When questioned by the motorist as the origin of the so-called "straight run gas," the service station attendant almost invariably replies that his motor fuel was purchased from one of the several of the larger refineries. In most cases, he quickly points out, the alleged superiority of his motor fuel over the "blended gasoline" sold by his neighboring service station operators.

Reflection upon this condition brings up the fact that the character of motor fuel has undergone considerable change during the past few years. It has been only a decade since all gasoline was actually the product of straight run distillation. That is to say, the gasoline was made as the result of boiling over and condensing the lightest fractions from crude petroleum by means of straight distillation. Low end points were customary and a volatile product was the result. Gravity of motor fuel at times exceeded 70 degrees Baume.

With the increase in demand for gasoline, refiners began to cut deeper into the crude. Some trouble was experienced with the high end points as a result. Specifications were then evolved to curb this practice and give a product which would respond to the vagaries of the struggling automobile engine. But the motor fuel remained largely straight run gasoline.

With the advent of cracking a few years ago, the death knell of straight run gasoline as motor fuel was sounded. Cracking produced a motor fuel, but difficulties were encountered in its use alone as motor fuel. As a result it became common practice among refiners to blend it in varying proportions with the top cuts of the crude, or real straight run gasoline, and to "pep up" the blend with natural gasoline. The result was a motor fuel that in many respects has been found superior to ordinary straight run gasoline.

Little Straight Run

"I would say that about 1½ per cent of the total amount of motor fuel sold is unadulterated straight run gasoline," was the statement of an Oklahoma refiner. "There are a few of the smaller plants, without cracking plants or natural gasoline plant connections who may be making some real straight run gasoline, but their output is so small that it is negligible."

It is the general opinion among refiners and the larger marketers in the Mid-Continent Field that from 98 to 99 per cent of all motor fuel sold is blended to some degree. It may be in the nature of a volatile crude cut blended with cracked gasoline, or it may be cracked gasoline blended with natural gasoline and naphtha, or any one of a large number of variations of blends made possible by using fractions from the straight distillation of the crude, cracked gasoline and natural gasoline. Refiners, in addition to pointing out the present method used in making motor fuel, assert with pride that the modern motor fuel is actually superior to the old straight run product. To duplicate the modern motor fuel by straight petroleum cuts would necessitate a sacrifice in yield which under present day competitive methods in marketing would put the strongest concerns on the rocks in a short time.

Modern Methods

A consideration of modern refining methods will help to show that straight run gasoline as motor fuel is almost a thing of the past. In a recent issue of The Oil and Gas Journal it was pointed out that in 1923 refiners ran 600,000,000 barrels of crude oil through the stills of the plants in the United States, producing 7,555,000,000 gallons of gasoline, a yield of 30 per cent. In 1923, when gasoline was almost entirely a straight run product, 248,000,000 barrels of crude oil were charged to the stills, producing, 1,250,000,000 gallons of gasoline, a recovery of only 12½ per cent. Finally, and of more significance, is the assertion that in 1923 straight distillation was responsible for only 70 per cent of the gasoline; cracking produced 21 per cent, and natural or casinghead gasoline produced 9 per cent. In 1913 it was shown that 98 per cent of the gasoline came from straight distillation, and 2 per cent was made by natural gasoline plants.

A continued increase in the amount of natural gasoline and cracked gasoline can be anticipated with the announcement of

(Continued on Page 132)

Study of Crude Production for Yearly Periods

By James McIntyre

In the year ending August 31, 1924, the production of crude oil in the United States was roundly 742,009,000 bbls. (subject to slight revision.) Compared with the year ending August 31, 1923, this was a gain of 68,714,000 bbls. the production for the 12 months ending August 31 last year having been 673,295,000 bbls.

The production for the calendar year 1923 was 738,879,000 bbls. in round numbers. This figure was a record-breaker up to that time but was exceeded by the output for the 12 months ending January 31, which totaled 742,883,000 bbls., which in turn was exceeded by the year ending February 29, which showed a production of 752,119,000 bbls., the increase continuing in March, April and May.

The greatest one year's production in the United States occurred from June 1, 1923 to May 31, 1924, during which 753,627,000 bbls. of crude oil was recovered. That was the peak and a production which few oil men believe will ever be exceeded in this country in any 12-month period.

The accompanying table gives the crude oil production of the United States by month since January, 1919, and the production for the 12 months just passed since January, 1920. It shows an almost constant increase, broken only by three successive declines in the fall of 1921, when crude market prices were very low and drilling was at a minimum. After November 1921 the 12-month production climbed steadily, as the table will show, until May, 1924, inclusive and thereafter it began falling steadily, as the months passed until by the close of September it is expected the production for the year just passed will be at a level, if not below what it was in the calendar year 1923.

This means no more than that the production flood, when measured by yearly periods, is on the wane. The month of August showed a production higher than any other month this year and the last statement of the United States Geological Survey indicated that the industry, even in July, with a production below what it was in August or September, was higher than the deliveries to refiners. Crude was stored in July to the amount of 5,000,000 bbls. and it is safe to say that there was a surplus in August.

The production of crude oil in the United States this year will be around 720,000,000 bbls. This is from 45,000,000 to 70,000,000 bbls. more than some of the best informed oil men believed it would be. Many estimates were made last January as to the probable production of 1924. These varied, of course. The lowest estimate made by any reputable petroleum statistician known to The Oil and Gas Journal was 650,000,000 bbls. The various other estimates ran between that figures and 700,000,000 bbls. It is doubtful if any man in any way engaged in the oil business believed that the United States would produce 720,000,000 bbls. this year. At the beginning of the year there was no Tonkawa deep sand production considered. No one was reckoning on that intrepid wildcatter, Thomas B. Slick, punching a deep hole in the earth over in Kay County and uncovering one of the richest pools ever discovered in the country, where the wells in their initial stage average between 4,000 and 4,300 bbls. a day per well. The Cromwell Field was of little consequence, even in February, with an average daily production then of 543 bbls. which has since increased to 64,000 bbls. and numerous other pools which developed into the major pool class.

There were six such pools in the United States which in July showed an aggregate production of 165,550 bbls. a day while in February the same pools produced only 40,147 bbls. a day. In addition to these, the Hominy district in Osage County, Oklahoma, and the deep sand production in Tonkawa, Kay and Noble Counties, Oklahoma, have greatly influenced the total of production, upsetting all the calculations of the shrewdest guessers on future production.

The table below is interesting chiefly in giving the reader figures with which to measure the country's production over any given period of time for several years past. It tells a story of how the oil industry kept pace with the demand made upon it for more crude in the past six years. It shows that the producing end of the industry did more than produce a sufficiency of oil by opening and developing fields of such magnitude as to greatly cheapen the product.

CRUDE OIL PRODUCTION OF THE UNITED STATES BY MONTH SINCE 1919 AND THE PRODUCTION AT THE END OF EACH MONTH FOR THE 12 MONTHS JUST PAST

	1919	1920		1921		1922		1923		1924	
Month—	Production for Month	Production for Month	Production for Past 12 Mos.	Production for Month	Production for Past 12 Mos.	Production for Month	Production for 12 Mos.	Production for Month	Production for Past 12 Mos.	Production for Month	Production for Year
January	28,835,000	34,008,000	383,540,000	38,138,000	447,059,000	43,696,000	477,741,000	54,636,000	568,471,000	58,640,000	742,883,000
February	26,549,000	33,193,000	390,184,000	35,524,000	449,390,000	41,314,000	483,531,000	49,958,000	577,115,000	56,153,000	749,678,000
March	29,952,000	36,171,000	396,403,000	41,105,000	454,324,000	47,188,000	489,614,000	57,329,000	587,256,000	57,329,000	752,119,000
April	29,628,000	34,945,000	401,720,000	50,232,000	459,642,000	45,167,000	494,548,000	58,344,000	600,433,000	59,440,000	753,627,000
May	30,587,000	36,622,000	407,755,000	42,189,000	465,179,000	47,002,000	499,361,000	61,624,000	615,055,000	62,136,000	751,921,000
June	30,878,000	36,663,000	413,540,000	40,548,000	469,064,000	46,087,000	504,900,000	62,538,000	631,606,000	60,538,000	746,627,000
July	34,020,000	37,746,000	417,266,000	40,461,000	471,779,000	47,134,000	511,573,000	68,005,000	652,377,000	62,613,000	742,009,000
August	33,613,000	38,906,000	422,559,000	41,109,000	473,982,000	47,059,000	517,523,000	67,977,000	673,295,000	63,459,000	.....
September	33,893,000	37,521,000	426,187,000	36,763,000	473,224,000	45,805,000	526,565,000	66,473,000	693,963,000	.....	.....
October	34,214,000	39,584,000	431,567,000	35,832,000	469,472,000	48,410,000	539,143,000	67,783,000	713,336,000	.....	.....
November	33,026,000	38,609,000	437,140,000	38,108,000	468,971,000	48,027,000	549,062,000	65,278,000	730,587,000	.....	.....
December	33,172,000	38,961,000	442,929,000	42,173,000	472,183,000	50,642,000	557,531,000	58,932,000	738,879,000	.....	.....
Total, 12 mos.	378,367,000	442,929,000	.....	472,183,000	.....	557,531,000	.....	738,879,000	.....	.....	.....
1918	355,928,000										

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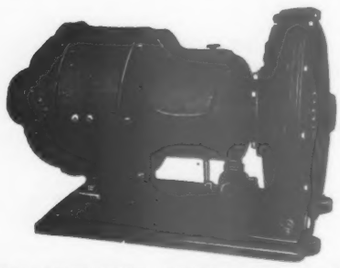

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MOON LIGHTING OUTFITS

HEAVY CONSUMPTION IN THE EAST BUT TREND TOWARD LOWER PRICES

By N. O. Fanning

NEW YORK, Sept. 8.—Heavy consumption, but a continued tendency toward lower prices, featured the Eastern gasoline market during the past week. Supplies of gasoline are far beyond actual needs, both at refineries and distributing centers. Tank car lots of gasoline are being shipped into New York, New Jersey and New England and the Mid-Continent, from western Pennsylvania and from refineries in the Philadelphia area, and all this competes with the gasoline produced and sold by refiners and distributors operating from Baltimore, Jersey City, Bayonne, New York, Providence and Boston.

Furthermore, there is a continual expansion of marketing facilities not only on the part of oil companies but others taking on "gas" as a side line. Retail prices for gasoline have a variation of 2 to 3 cents in any town of any size and an even wider spread in the large cities.

The tank wagon price of gasoline in New York and New England is supposed to be 18 cents per gallon, and in New Jersey 17½ cents, but naturally this price level cannot be strictly adhered to in the face of destructive competition. The question is, who is going to stand the loss when the price suffers a real slump, as it is expected to do.

Kerosene Firm

Although there is no special feature in the kerosene market, prices are holding firm because of the heavy exportation of the product now in process. No change in prices has been recorded during the past week.

Fuel Oil Strong

The fuel oil market is exceptionally strong. This is attributed to a slow but steady gain in consumption and to the fact that fuel oil of the desired quality is so hard to get. One large Mexican producer is now going into the California fuel oil market on a large scale, indicating the situation which now exists. Most of the California oil moving to the Atlantic Seaboard (amounting to about 127,000 bbls. daily during August) is light fuel oil, which is being mixed with heavy Panuco crude to obtain oil of the needed gravity.

Despite the smaller supply of light Mexican oil available, its price has been somewhat lower during the last week. Light Mexican oil at Tampico brings approximately $1.15 per barrel, a drop of 25 cents, while heavy Mexican oil is quoted about 95 cents, not including taxes. The weakness in price is attributed to the increased supply of light California fuel oil and light Texas and Louisiana oils available.

Exports Fall Off

The export oil movement from New York during the past week was somewhat smaller. Only one bulk cargo was reported, and in fact every department showed a slump. The bulk cargo consisted of 1,026,332 gallons of gasoline and 1,506,701 gallons of kerosene consigned to Denmark.

Some fear is being felt here with regard to the reported military operations in China, which might interfere with the importation of gasoline and kerosene, a large percentage of which is shipped from New York. The last shipment to China recorded here was on August 27, and comprised 132,000 cases of kerosene.

However, no conclusions can be drawn from the situation as yet. The struggle in China might conceivably increase the demand for oil, instead of reducing it.

Exports of gasoline during the week ended September 3 included in addition to the bulk cargo mentioned 21,500 cases consigned to Brazil. During the preceding week case exports of gasoline totaled 126,315, and the week before that, 210,347 cases.

Cased kerosene moved out to the extent of only 30,000 cases, against 142,500 cases and 323,429 cases, respectively, the two weeks preceding.

The only important shipment of paraffin wax reported consisted of 889 bbls. to Ireland.

The following table shows principal exports of petroleum and petroleum products from New York harbor reported during the past three weeks:

	Week Ended		
Gasoline:	Sept. 3	Aug. 27	Aug. 20
Bulk (gals.)	1,026,332	3,025,003	2,885,000
Barrels	.....	.....	1,000
Cases	21,500	126,315	210,347
Kerosene:			
Bulk (gals.)	1,506,701	5,587,784	.....
Cases	30,000	142,500	323,429
Fuel oil:			
Bulk (gals.)	.....	1,600,000	.....
Gas oil:			
Bulk (gals.)	.....	462,735	.....
Lubricating oil:			
Bulk (gals.)	.....	1,958,841	.....
Barrels	2,375	10,855	9,015
Cases	1,345	4,374	13,306
Lubricating grease:			
Barrels	.....	.....	1,327
Paraffin wax:			
Pounds	.....	3,348,400	1,579,500
Barrels	889	.....	.....
Crude oil:			
Barrels	4,235	3,562	1,111

Exports of crude, consisting of 4,235 bbls., were all to France.

Oil Receipts Gain

Receipts of crude and refined oil at Atlantic Coast ports during the week ended September 3 are estimated by The Oil and Gas Journal at 582,000 bbls. daily, against 421,000 bbls. the preceding week. Of the total, receipts from the Gulf comprised 316,000 bbls. daily, from the Pacific Coast 129,000 bbls. daily and imports averaged 137,000 bbls. daily.

August receipts are estimated at 521,000 bbls. daily, a gain of 4,000 over July. Receipts from the Gulf Coast for August averaged 310,000 bbls. daily, a decline of 8,000; receipts from California averaged 127,000 bbls., a gain of 42,000; imports averaged 84,000 bbls., a drop of 30,000.

Compared with August, 1923, receipts from the chief sources are as follows:

From—	1924	1923	Change
Gulf Coast	310,000	176,000	134,000 Inc.
California	127,000	170,000	43,000 Dec.
Mexico, etc.	84,000	101,000	15,000 Dec.
Total	521,000	447,000	74,000 Inc.

The significant feature of the comparison is that receipts from the Gulf Coast have increased by 134,000 bbls., while those from California and imports, combined, have declined 58,000 bbls. in the daily averages.

The following table shows estimated daily average receipts of crude and refined oil by water at Atlantic Coast ports from the Gulf and Pacific coasts of the United States, and imports, for the last three weeks; also monthly record for the last 12 months (figured in barrels):

	Week ended		
	Sept. 3	Aug. 27	Aug. 20
Gulf Coast	316,000	220,000	274,000
Pacific Coast	129,000	92,000	135,000
*Imports	137,000	109,000	82,000
Total	582,000	421,000	491,000

Daily Averages by Months				
1924—	Gulf	Pacific	Imports	Total
August	310,000	127,000	84,000	521,000
July	318,000	85,000	114,000	517,000
June	302,000	133,000	136,000	571,000
May	276,000	122,000	144,000	542,000
April	262,000	143,000	123,000	528,000
March	201,000	137,000	130,000	468,000
February	174,000	175,000	108,000	457,000
January	127,000	159,000	79,000	365,000
1923—				
December	184,000	152,000	119,000	456,000
November	186,000	141,000	110,000	437,000
October	200,000	164,000	133,000	497,000
September	155,000	146,000	107,000	408,000
August	176,000	170,000	101,000	447,000

*Imports largely from Mexico, but include total of 125,000 bbls., or 18,000 bbls. daily, from Peru.

TANKERS TO TRIESTE

Trieste has resumed much of its importance as a center of oil commerce. Two years ago the Austrian and Hungarian refineries, with which the Czecho-Slovak refineries afterwards grouped themselves, began to fill their requirements for crude oil by direct importation from Russia by arrangement with the Soviet Government. This oil was, as regards the great bulk of it, transported up the Danube. In view of the long journey and the necessity for lightering twice the Floridsdorf refinery recently made the experiment of having its crude oil shipped from a Russian Black Sea port to Trieste, and two tankers have made the trip with success.

The Cross Cracking Process

You wouldn't install a Cheese Box Still in your refinery—then why install a Cracking Process that produces other than end point gasoline?

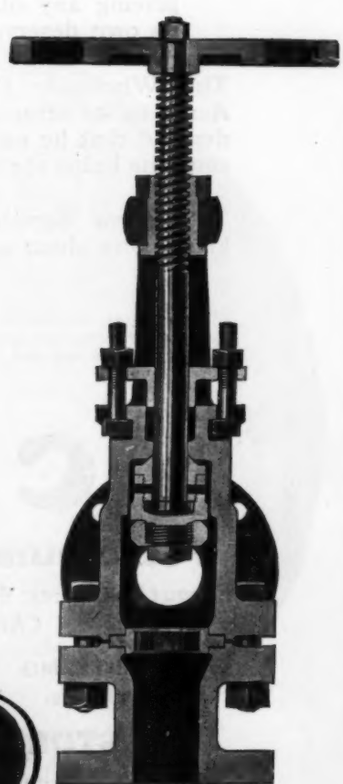
The Cross Process produces end point gasoline direct.

Think what this will do to an already low operating cost.

THE M. W. KELLOGG CO.
90 West St.
NEW YORK CITY

BRANCH OFFICES:
700 Baltimore Avenue, Kansas City, Mo.
304 Lane Mortgage Building, Los Angeles, Cal.

A Single Glance at This Cut



should convince you of the quality of this valve.

A further examination of the points enumerated and a study of how the valve is assembled and parts kept in proper position will make this conviction more positive.

But the final proof is in the using.

A blow-off valve is bound to wear, the Hovalco valve is designed to make it as easy as possible to replace worn parts, and no other type of valve can be repaired with the small amount of work required to repair the Hovalco.

The seat is not screwed into the body.

No special tools are necessary.

The HOMESTEAD-HOVALCO VALVES are frequently used as a combination or double blow-off valve. This combination will give good service on highest boiler pressures.

It will enable you to change seats and discs on the Hovalco blow-off Valve without interfering with the operation of the boiler.

Made of Semi Steel or Cast Steel for higher pressures.

Approved by A. S. M. E. Code and State laws.

Get a catalog showing combination blow-off Valves

HOMESTEAD VALVE MFG. CO., Homestead, Pa.

HOMESTEAD

Keeping Overhead Down—and Keeping Prices Low

There is as great a difference between the "Broker" in oil and the Wholesale Distributor in Oil as between day and night.

It is an open question whether desk space and a knowledge of markets and demands is sufficient justification in itself for profits on oil transactions.

But can anyone question the right of the ethical Wholesale Oil Distributor, with great sums of money invested in Tank Cars and mammoth steel storage tanks to exact his small profit? Especially when he also

—saves the Refiner ¾ of his overhead?

—makes it possible for the Retail Distributor to have his oil when he wants it and as he wants it?

—and actually makes oil cheaper for the consumer to buy without depriving any other oil interest of its own deserved profit?

The Wholesale Oil Distributor, like Acme, exists because business economics demand that he exist. He prospers because he helps the industry prosper.

Test Acme Service—we want you to know more about us.

(This is tenth of a series of informatory advertisements on distribution problems with which the Oil Industry has to contend.)

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Executive Offices: 624 S. Michigan Ave., Chicago

KANSAS CITY, MO. Land Bank Bldg.

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OIL STORAGE PLANTS

West Tulsa, Okla. Blue Island, Ill.

(Chicago Switching District)

CHICAGO FEARS GASOLINE IS SLIPPING

Demand Is Uneven and Situation Unsatisfactory. Ruses Adopted to Force Down Prices. Kerosene in Moderate Demand. Fuel Oil Firm. Gas Oil Quiet. Tank Wagon Unsettled With Cuts Spreading to New Territory

By J. B. Waldo

CHICAGO, Sept. 6.—While the gasoline market here has not actually slipped, it is on slippery ground and the jobbers know it as well as the refiner. Everybody says "you just wait," and they are waiting. Marketer after marketer has called up jobber after jobber and the result has been a crop of promises of something in the way of an order along about the twentieth of the month. The August distribution was substantially larger than a year ago. Labor Day, which is always a source of real gallonage with fairly decent weather, increased the jobbers' needs for motor fuel and they ordered because they needed or were sure that they would need gasoline. They also felt fairly safe as to prices, the date of the predicted crude cut having been deferred until the middle of September. The jobber ordered freely during August, but they are not ordering that way since Labor Day, although that day was one of the best for business the jobber has had this year.

It is largely the old question of who will make the first move. Will the consumption continue large enough to force the jobber to buy or will the demand be so light the jobber can wait until the refiner has to sell? Right now, some refiners are getting anxious for the business and they are going to the jobber and asking for orders at 8 cents for New Navy and this cuts out the many sellers whose costs force them to ask at least 8¼ cents for the same grade and in some cases the very same product which their customers assure them they can buy direct at 8 cents. It would seem that with the development of the industry a code of sales ethics would be evolved that would prevent the refiner from selling at a lower price or at as low a price to the jobber as he sells to his marketer whose customers these jobbers might be considered. The game has always been played that way and few refiners when the orders do not meet expectations can resist the temptation to wire jobbers to whom they have sold at some time that they can fill their orders at a price less than that at which the marketing customers of the refiners can sell. There are very honorable exceptions and there are refiners who confine their sales to jobbers and will not sell for resale. This is not intended as any plea for the marketer but for consistency in methods and sales plans.

Market Easier

It costs a lot of money these days to sell any kind of merchandise and the business worked up by any concern is not anchored to it except as the customer is given value for his money. A satisfied list of customers is not made by wiring low prices when business is dull, and having nothing to offer when trade is good but caring for customers at all seasons at prices which permit a profit. The car lot marketer has an essential place in the industry or he would not have survived the many periods of stress he has had to go through.

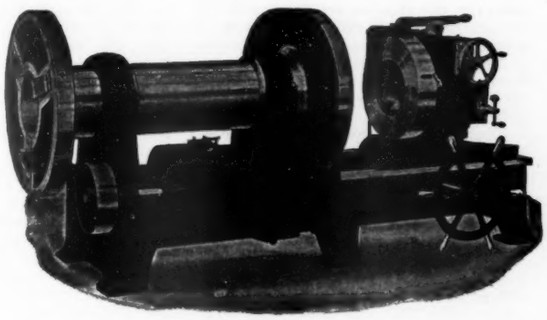
With the 8-cent gasoline offered to some jobbers the market was easier and reports began to be made of a feeling in refining circles that gasoline was due for a reaction. Some prices were quoted during the week from North Texas that were less than the parity of Group 3 prices. A few cars that had not moved as expected and were left on the tracks were peddled around for several days as if they were really important. One shipment of five cars of New Navy gasoline was offered to every possible buyer in the city and for some reason they did not all move for several days, all of which was used by those who wanted lower prices and a weaker situation to show that what was wanted was an actual fact. As a matter of fact, right to the close of the week the best buyers here were paying 8 cents for New Navy and they admitted they could not find any quantity they could buy for less, although they had heard lower prices were being made. These reports are made out of the whole cloth. A possible buyer calls up and says he is in the market for five cars and wants the very best price. He is quoted 8 cents; says he can get all he wants at 7¾ cents, would like to give the order but of course he cannot pay more than he is offered the gasoline at and if you cannot meet it, sorry; next time. This is propaganda pure and simple and it is worked day after day and all day long, and the trade falls for it and will fall for it just so long as there is no real means of finding out what the market is and the prices at which all, not some of the refiners will sell.

Demand Uneven

The demand has been uneven. Some concerns have done business and others have not. The total of sales has been fair but jobbers are resisting as they best can any higher prices and striving to fill their tanks at a price which will assure them of a profit, even if the price in their town is cut a cent or two before night. They feel the peak of the season has been passed and while admitting stocks in the Mid-Continent Field have been greatly reduced and are probably not large, they still fear the large surplus reported by the Bureau of Mines as being held in other parts of the country. The writer, for one, is skeptical regarding these stocks of gasoline and their possible competition with refiners in the Mid-Continent Field. Some of the refiners in the valley are now shipping large quantities of gasoline to Eastern Ohio and Western Pennsylvania and if there were competing stocks they would have been developed, it would seem, before the refiners in this vicinity could ship to these points. The writer is not alone in believing the available stocks of gasoline are not greatly larger in the East than they are in the Mid-Continent Field and that they will be so found in due time. Stocks held by companies with large distribution and whose plants are closed down in part if not entirely, are not stocks the independent distributor can draw on at will. Many large organizations are still refining but a small part of their possible gasoline gallonage and are buying anything they need. This method of operation will in time absorb much of the surplus and while gasoline stocks are large in some parts of the country, reckoned in days of consumption, they are not as large as they appear at first sight. The demand is still very largely for the straight run New Navy and the 56-68, 450 gravity. Sales of the higher tests are not very important here and blends are slow sellers. Natural gasoline is still scarce and prices are firmly held but the trade is looking for lower quotations with the falling off in the demand for motor fuel.

Kerosene Moderate

Kerosene is selling moderately well but the strength of the market is based on small supplies that can be had for prompt delivery. A good deal of tractor demand has been supplied by the use of gasoline. In many places where the tank wagon price has been cut, the cost of gasoline is but little more than kerosene and the farmers have used the latter to a great extent. The distillate market is active right now and this demand is adding to the confusion that prevails in the trade. Most of the distributors seem to have planned for a consumption at least double that of last season and the outlook is they have not overestimated the



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The constantly growing list of satisfied users is the best evidence that our machines stand up to the most severe usage. Every part is designed with the idea of staying on the job until time and experience make the design obsolete, and still they stay.

Our present design is a growth from the experience of years of successful building.

Write today for circulars.

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Can only be accomplished by using a baffle that will permit complete saturation of the absorber oil with the wet vapors of the gas.

Foster Baffles are of proven efficiency, possessing a large void space, large contact area, equal distribution of oil and gas thus insuring maximum saturation.

Send for literature.

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Consulting, Manufacturing and Operating Engineers
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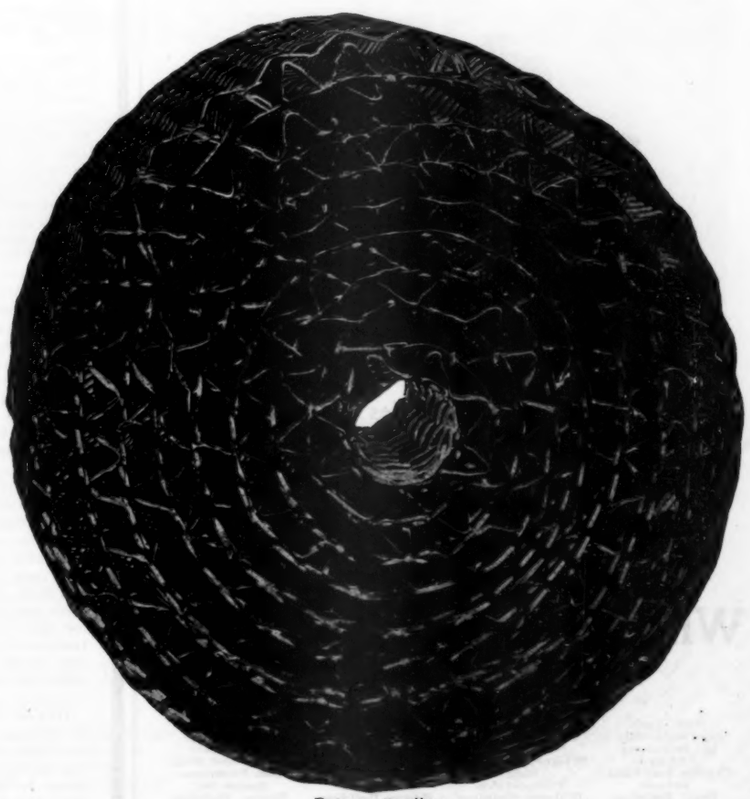

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"TOLEDO" NO. 1A—
Preferred by Those Who Know

This "Toledo" No. 1A ratchet tool for threading 1" to 2" pipe, gets to the job anywhere, and does its work easily and quickly. For 20 years it has been preferred by experienced operators.

Note its clean-cut appearance, its freedom from complicated parts, and its sturdy construction, yet it weighs less than 18 lbs as it is picked up and put on the pipe. The working parts are few and the ratchet mechanism is in a dirt-proof case. The dies cut with customary "Toledo" ease, and it is the easiest to operate of all 1" to 2" threaders.

Your jobber will tell you more about this tool of proven worth or drop us a card for particulars.

THE TOLEDO PIPE THREADING MACHINE CO.
Toledo, Ohio
New York office, 50 Church St.

"TOLEDO"

For "Toledo" Quality Look for This Trade-Mark and Insist on It

Are the outstanding qualities of WHEELING PIPE—and very necessary in the field, on the line, at the refinery, and in fact wherever dependable pipe is used. Specify WHEELING PIPE for Rotary Pipe, Drive Pipe, Drill Pipe, Line Pipe, Standard Pipe, Tubing and Casing.

Wheeling Steel Corporation

Wheeling, W. Va.

DISTRICT OFFICES:

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Oliver Building
New Orleans
Whitney Central Bldg.
Philadelphia
Widener Building

Boston
Massachusetts Trust Bldg.
Kansas City
Dwight Building
Cleveland
Hanna Building
Seattle
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Dallas
Kirby Bldg.
Cincinnati
Union Trust Bldg.
San Francisco
Room 902
Rialto Building
St. Louis
Boatmen's Bank Bldg.

business that will be done. The refiners have in some few cases made a price based on crude and in others they have accepted a limited amount of orders for delivery over the season at a flat rate, but generally the supplies are being held for the market and the tendency is to mark prices up as the demand develops. Some of the largest local distributors have refused to make any contracts with users for the coming winter but are trying to induce the users of domestic oil heaters to install larger tanks and put in stocks that would run them through a considerable part of the season. Some consumers are doing so but many refuse.

Domestic Tanks.

Inspection of the permits for installing inside tanks show that the vast majority are installing 200-gallon and 250-gallon tanks. On the average basis of 135 gallons of oil to a ton of coal, this means that they are installing tanks which will require filling from five to eight times during the season in a small house and as often as once a week in some larger dwellings. The Standard's tank wagon price for its furnace oil, and this season it is offering but the one grade, is 8½ to 9½ cents for more or less than 200 gallons. A sample of this oil tested 37.7 gravity, 209 flash and 406 IBP. Color 6. The company has dropped the lower grade which it handled last year. A good straw distillate 36-38 gravity is now commanding 3½ to 3¾ cents here in tank cars, f.o.b. Group 3. The cost laid down is practically 6 cents. Distributors state that 2½ cents a gallon does not pay the costs of handling in the average lots. Prime white distillate is being sold at 4 cents. So the profits in the business to such distributors as are without contracts is small at the present market for the commodity in the refining centers. Sinclair has been taking some contracts but is understood to have ceased. The effect on the users has yet to be tested. A good grade of furnace coal can be purchased today at $10 put in. At 8½ cents the cost of oil would be about the same. Some oil men regard the future with considerable equanimity believing many refiners will begin to run distillates and the supply will tend to increase if prices are maintained at their present level.

Fuel Oil Firm.

Fuel oil is still very firm and probably will continue so as the demand is increasing. The railroads are running more trains and hauling more cars and will use more fuel oil as well as lubricants. The steel industry is slowly increasing its activities and the demand is quite good from points East as well as in the surrounding territory. The auto companies are getting back to a larger production and several were in the market for fuel oil during the week. Some of the largest buyers are still refusing to make contracts but are purchasing for their increasing needs in the market and when the crude price is once more settled they will be ready to contract for their requirements. The smaller concerns that can take a contract, complete it and be through with the business in a few weeks, are doing more buying of fuel oil than the larger concerns. The demand from eastern Ohio and from western Pennsylvania is still large with such organizations as are in position to do business in these sections effectively. Deveries count for a good deal. One large steel concern requires two cars one day and three the next, and it must be just two cars and three cars, according to schedule. This is like one of the New York gas companies which has dockage for just one barge at a time and this restricts deliveries to local refiners who can watch and have a barge waiting when the one at the dock is empty.

Gas Oil Quiet.

Gas oil is moving quietly and with little change. The recently advanced prices are firmly held and 3 cents is considered the bottom price. Stocks are light, to judge by the offerings and the few that have any oil for prompt shipment. Some rather small contracts have been placed. Considerable is being taken by jobbers for domestic use.

Some engineers have been very enthusiastic regarding tests made of a new type of Diesel engine at Buffalo. According to some who went down to witness the test, the engine can do anything but talk, in fact, its comparative noiselessness is one of its merits. They predict the engine will revolutionize ocean and lake transportation and if this is the case it means more oil for fuel, probably gas oil, although no one seemed to know what grade of oil was used, but gas oil is usually about the grade of a Diesel engine oil.

The road oil season is over and while it might have been better if the weather had been less moist, it was a very fair season. Many communities used only their minimum requirements and some skimped on these. Any business from now on will be unexpected and therefore welcome. Prices are practically $1 for anything the refiner has left to sell.

In the lubricating oil section there is considerable hope that the business will improve. There are some reports of enlarged industrial demands and while this is not a great change it should follow increased activity in transportation and manufacturing. The export business is expected to be an important part of the outlet in the near future.

Tank Wagon Cuts.

The tank wagon market is still unsettled and the cuts in prices continue. Parts of the Indiana territory that had been practically immune are now afflicted with the disease and there seems to be no ending to the trouble. There is every assurance there will be no general decline until there is a cut in crude and some of the oil men begin to believe if the peak of production has been passed as it may have been for this season, that the holders of the crude will try and maintain prices until considerably later in the season than expected. This seems to mean that as the refining costs will not be reduced, there will be no change in the Standard's quotations for the present at least.

NORTH TEXAS MARKET MIXED AT WEEK END

FORT WORTH, Tex., Sept. 8.—The refined market in North Texas developed a diversified condition at the week end. New Navy gasoline lost around ¼-cent a gallon, the few sales reported ranging from 7½ cents to 8 cents. The decrease is charged to the scarcity of orders, refiners accepting the cut in price in order to move an accumulating stock.

The market for the higher grades showed a downward trend 64-66, 375 end point, was weak with no orders at 9¼ to 9½ cents. With no spot natural gasoline, orders plentiful and a strong demand, this product developed a peculiar condition, with Grades A, B, and C, selling at the same price, 8¾ cents to 9 cents a gallon, flat.

With little stock and an increase in orders fuel oil advanced 5 cents a barrel. A majority of sales at the end of the week was made at 90 cents flat, sellers' cars, at Wichita Falls. The cotton gins and oil mills were the predominating reason for the strength of this product.

Kerosene continued firm. An increase in orders and inquiries was reported. Price fluctuated but little from last week, 4½ cents for water white and 4¼ cents a gallon for prime white was the low price. Gast oil stiffened a little, with an increase in demand, but no increase in price developed. All sales reported were at 2¾ cents a gallon; 3 cents was asked by some marketers but no orders were placed.

CANADIAN MOTOR CARS

TORONTO, Sept. 6.—A. W. Campbell, Dominion Highway Commissioner, estimates the total number of motor vehicles registered in Canada this year at 626,206, this being based on the average rate of increase since 1920. Registrations for 1920 were 415,187. Total income received by provinces from licenses in 1920 was $6,016,028; and in 1924, it will be more than $13,000,000.

"WRITE FOR OUR CATALOG"

The Largest and Most Modern Steel Plant in the West - -

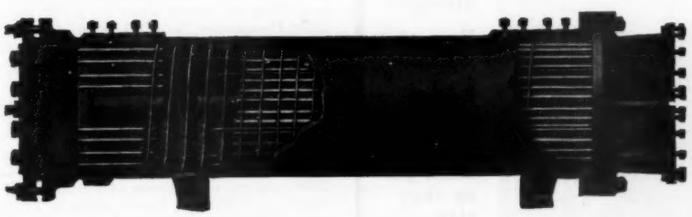
This modern, up-to-date plant located in Kansas City, the gateway to the Southwest, backed by a warehouse stock of 10,000 tons and a fabricating capacity of 5,000 tons per month assures prompt delivery to all southwestern points.

KANSAS CITY STRUCTURAL STEEL CO.

Kansas City, U. S. A.

Tulsa, Okla. **Dallas, Texas** **Denver, Colo.**

Compact—Self-contained—Portable



The Multiwhirl Oil Cooler

is compact because of its exceptionally high rate of heat transfer.
is self-contained because every element required for its operation is enclosed in the shell and included as a unit apparatus.
is easily and quickly transported to any location as required by changes in equipment or for different operations.

—These are only 3 out of more than a dozen outstanding advantages of the Multiwhirl Oil Cooler. Send for Bulletin 910 describing this and other G-R Heat Exchangers for Oil Refineries.

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Philadelphia	Pittsburgh	Chicago	St. Louis	New Orleans	San Francisco
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Gentlemen:—please send copy your Bulletin No. 910 describing Multi-whirl and G-R Vaneflo Exchangers.
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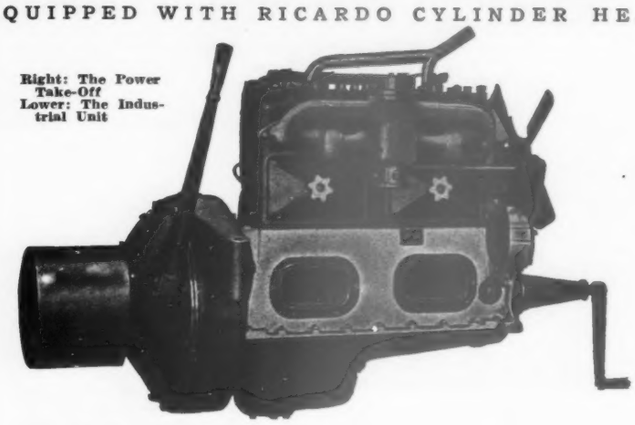
EQUIPPED WITH RICARDO CYLINDER HEAD

Right: The Power Take-Off
Lower: The Industrial Unit



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TRADE MARK

See the Waukesha Industrial Unit—that powerful heavy duty engine that's increasing pump and drilling machinery operation *at lower production costs* for many leading operators—*at the Oil and Gas Show, Tulsa, Oklahoma, October 2nd to 11th.*

Spaces 9 and 10, Ohio Building.

Write NOW for complete details on this unit.

Waukesha Motor Company

Engine Builders
Waukesha, Wisconsin
New York City

O'Brien Structural Steel Derricks

Features:

Strength

Ease of erection

Low cost

No upkeep, when put up they stay.

The double splice joint, a patented feature.

Cannot wind or twist.

Has never been pulled in.

Complete Steel Derrick

The sturdy old oak derrick got its strength from the fact that it was an angle derrick. O'Brien derricks are **steel angles.** You know the answer.

O'Brien Steel Construction Co.
Washington, Pa.
Rig Equipment Company, Sand Springs, Okla.

MEXICAN FIELDS

(Continued from Page 40)

at 250 feet; No. 96, drilling in the Tamasopa at 2,035 feet; its No. 55, Lot 3, has cemented 8-inch in the San Felipe at 1,152 feet, and No. 65, same, is drilling in limestone at 1,635 feet. Mexican Atlas Petroleum Corp.'s No. 2, Lot 1, is drilling in the San Felipe at 1,525 feet. Mexican Eagle Oil Co.'s No. 22, Lot 1, is drilling in blue shale at 405 feet. Mexican Petroleum Co.'s No. 18, Lot 1, drilling in shale and shell at 1,190 feet.

Transcontinental Petroleum Co.'s operations in Lot 4 are as follows: No. 39 is drilling in limestone at 2,010 feet; No. 43 is in shale at 150 feet; No. 44 is in the same formation at 1,035 feet; No. 111 is drilling in lime at 2,280 feet; No. 114 is drilling in the San Felipe at 1,620 feet; in Lot W, No. 117 is drilling in shale at 250 feet. Lot 5's operations follow: No. 121 is drilling in limestone at 2,115 feet; No. 122 is drilling in lime at 2,135 feet; No. 120, drilling in gray lime at 1,740 feet; No. 128 is in shale at 225 feet. In the Paciencia, just north of Cacalilao, Transcontinental's No. 7 is drilling in the San Felipe at 1,680 feet; No. 13 has cemented 8-inch at 1,205 feet.

Panuco Old Sectors

In the older sectors of the Panuco Field, drilling operations are as follows: Caltex Oil Co.'s No. 6, Lot 6 Camolote, drilling in shale at 1,130 feet; East Coast Oil Co.'s No. 18 Estero Grande, drilling in shale at 155 feet; its No. 437 Ingenio, shut down in white lime at 1,945 feet and its No. 216 Hudson is drilling in gray and white lime at 2,300 feet. Mexican Sinclair Petroleum Corp.'s No. 4 Tananturo is drilling in gray lime at 1,540 feet. Mallory and others' No. 4 Palangana has cemented 8-inch at 1,510 feet in a hard shale. National Railways (Federal zone) No. 9 Tanchicuin, is drilling in lime at 1,865 feet. National Oil Co.'s No. 12 Chijol is drilling in shale around 375 feet.

South Fields

In the South Fields, Huasteca Petroleum Co.'s (Mexican Petroleum) No. 46 Cerro Azul is drilling in gray lime at 1,970 feet; its No. 7 is drilling in basalt at 857 feet. Down in Tierra Blanca its No. 24-A has cemented 8-inch in a blue lime at 2,060 feet; its No. 31 has cemented 10-inch in brown shale at 1,741 feet. Up in Tres Hermanos, its No. 8 is drilling in brown shale at 2,410 feet. Agwi Companies' No. 25 Laguna de Tamiahua is a derrick, while its No. 26, same, is fishing at 370 feet in shale. La Corona Petroleum Co.'s No. 4-A, Lot 31 Zacamixtle has cemented 6-inch in lime at 2,270 feet and its No. 36, Lot 228 Amatlan, is spudding.

Cortez Oil Corp.'s No. 8 Aguada is drilling in the San Felipe at 4,737 feet. International Petroleum Co.'s No. 47 Toteco is drilling in brown shale at 1,679 feet. Pantepec Petroleum Co.'s No. 1, Lot 134 Chinampa, is drilling at over 1,000 feet in shale. Mexican Eagle Oil Co.'s No. 25 Alazan has cemented 8-inch at 1,800 feet in a hard shale.

Miscellaneous Tests

In the Topila Pool, La Espuela Oil Co.'s No. 5, Lot 45, Paciencia de Aguacate is drilling in gray lime at 2,150 feet. Mexican Fuel Co.'s No. 14 Santa Fe is rigging.

At Ebano, Mexican Petroleum Co.'s No. 26 Chijol is drilling in a gray lime at 1,830 feet; No. 36 La Dicha is drilling at 1,970 feet, in lime, showing by heads; No. 38, same, is running 6-inch at 2,136 feet, in lime; No. 41, drilling at 2,270 feet in lime; No. 42, in shale at 1,230 feet; No. 43, cemented 10-inch in lime at 1,225 feet; No. 48, rigging. North of the Tamesi River, No. 1 Tancasneque has cemented 10-inch in lime at 1,645 feet, and at the south boundary of Ebano No. 5 Margaritas is running 10-inch at 1,440 feet.

In the Tortuga district, Morrison and others have the interest centered just now on No. 2 which is drilling at 2,055 feet in a brownish brittle lime, with a small showing. The No. 4 there is drilling in shale at 1,050 feet; No. 6 is fishing at the same depth, and the other tests are at nominal depths, most of them temporarily shut down for various reasons.

In the El Barco district, Mexican Gulf Oil Co.'s No. 36 is drilling in gray lime at 1,721 feet; No. 52 is in the same formation at 2,220 feet; No. 62 is in shale at 1,125 feet; No. 2 Salinas is a deep hole at 2,575 feet in gray and brown lime and No. 5, same, is too deep for hope, being 3,015 feet in white lime. Kern Mex Oil Fields, No. 6 El Barco has cemented 8-inch in gray lime at 1,417 feet, and its No. 7, same, is drilling in shale at 627 feet.

In the Marland Field, Cia Pet. Franco Espanola's No. 8 Limon is drilling at 3,100 feet in white lime; its No. 16 is drilling in shale and shell at 1,347 feet; No. 17 is drilling in blue shale at 2,045 feet, and No. 20 is drilling in the same formation at 1,075 feet.

At Los Esteros, American International Fuel Co., No. 14 is drilling in gray shale at 1,580 feet.

COASTAL MARKET FIRM, TENDENCY TO STIFFEN

HOUSTON, Tex., Sept. 8.—The Houston refined market held firm through the past week, with a tendency to stiffen. One refiner complains others showed a tendency to shade prices a little but investigation revealed this a mere rumor, as other refiners reported a strong flood of inquiries and orders. One refiner reported sold up to the handle and unable to sell more at present prices.

An indication of the market demand is that one refinery loaded out 32 tank cars in one day. Another day seven tank cars went out and still another three tank cars.

This fall and winter is expected to furnish a strong demand for 300 viscosity oil instead of 200 viscosity as heretofore. The reason is that automotive manufacturers are recommending heavier oils for lubricating purposes due to changes in motor construction. It is also expected that more than 500 and 750 viscosity oils will find a market this fall and winter, at least twice as much.

The export market, too, is showing considerable activity. This is partly due to the settlement of European finances and that export buyers are always in the market when crude prices are at rock bottom.

Practically all gas oil is sold up and fuel oil is far from a drug on the market.

GULF COAST

(Continued from Page 44)

2,100 feet. The Shasta Oil Co.'s No. 1 Holbein is around 675 feet. In Jim Wells County, the Simms Petroleum Co.'s No. 1 Miller, near Sandia, is at 2,353 feet.

In Medina County, the Schimmoll Oil Co. is drilling south of Lytle. The Calif-Medina Oil Co.'s No. 1 in survey 1012 is drilling around 2,375 feet. The Witherspoon Oil Co.'s No. 1, survey 7, is at 2,410 feet. The Army Oil Co.'s No. 1, survey 16, is at 1,100 feet and Wolff and others No. 1, survey 562, is drilling at 1,500 feet.

Back in the Coastal Counties, the Gulf Coast Development Co.'s No. 3 Vogel, in Fort Bend County, is around 3,100 feet. Davis & Giescke's No. 1, near Little York, Harris County, is below 2,000 feet. Rich and others' two formation tests west of Houston are still shut down.

The Post-Oak-Falvey Oil Co.'s test, near Marlin, is drilling around 1,625 feet. In Jefferson County, the Houston Oil Co.'s No. 1 Gulf-Pipkin is drilling at 1,765 feet at Big Hill Dome. The same company is rigging No. 1 Sun-Pipkin, in Jackson County, the Vanderbilt Petroleum Co.'s No. 1 Seliner cored at 2,200 feet.

OIL TANKER WRECKED.

SAN LUIS OBISPO, Cal., Sept. 6.—Failing in the attempt to remove the oil tanker, Orowaiti, from the rocks off Port Sal, near here, during an unusually high tide, the ship has been given up as a total loss. She was returning from New Zealand in ballast.

"Ironcase" and Tin Meters
Metric Orifice Meters

GAS MEASUREMENT

Westcott Differential Gauges
Westcott Proportional Meters

For Accurate — Constant — Economical Work

Measure With Metric

WESTCOTT & GREIS
TULSA DALLAS CASPER
Gas Measurement and Control

METRIC METAL WORKS
of AMERICAN METER COMPANY, Inc.
ERIE, PA.

Republic Belting stands the gaff!

For drilling—gang powers or beam pumping—Republic belting produces like a tested field. Careful experiment caused Republic Engineers to adopt the present construction of Republic drilling and pumping belts—time and service tests proved to users their superiority. One driller says, "I operate several strings of tools and have used different kinds of belting, costing more, but which did not last any longer than good old Republic."

Republic belting stands the gaff! Why not investigate?

THE REPUBLIC RUBBER COMPANY
Youngstown, Ohio

THE REPUBLIC RUBBER CO. YOUNGSTOWN, OHIO

REPUBLIC BELTING

25 CENTS per line first insertion; 15c per line each additional insertion. Cash in advance.

CLASSIFIED WANTS

MAIL your advertisement now. It will be published next week. Cash with order.

FOR SALE—EQUIPMENT

FOR SALE CHEAP

New Model G Franklin Oil Field Tractor in good condition, especially designed for pulling casing, tubing and rods. In addition to its adaptability to well pulling, it may be used as a tractor for hauling and general lease service. Address Box A-380, care The Oil and Gas Journal, Tulsa, Okla.

FOR SALE at Hollis, Okla., 2,100 feet once run 8¼-inch, 28-lb. National pipe. One set of 6-inch Ideal rig irons and complete set standard rig timbers. A. H. Keys, 616 Tradesmens Bldg., Oklahoma City, Okla.

FOR SALE—Twenty standard gauge all-steel tank cars; also 25 storage tanks, 500- to 10,000.bbl. capacity; also seven stills; must move same at once; offer the above at less than 25 per cent of cost. Consolidated Metals Corp., Fourteenth and Walnut, Kansas City, Mo.

A BARGAIN—Practically new 10-ton Holt Caterpillar and three Troy Trailers all in A-1 condition. Address Box 82. Morris, Okla.

JUST THINK. $2.80 will pay for sending a four-line advertisement all around the world, four times. A four-line Classified Advertisement usually consists of 24 words and you know a great deal can be told in a few words. Mail your advertisement to the Classified Section now so that you will get in next Thursday's issue.

CASING BARGAINS FOR CASH
Second hand, A-1 condition
2,000 feet, 15½ inch, 70 pound;
6,000 feet, 12½ inch, 50 pound;
10,000 feet, 10 inch, 35-40 pound;
5,000 feet, 8¼ inch, 28 pound.
SHEFT'S SUPPLY, Box 82 or
Phone 105. Morris, Okla.

STAR Drilling Rigs for sale, Nos. 25, 27 and 28. Box 653, Kansas City, Mo.

WRITE your advertisement, mail it to The Oil and Gas Journal, and it will be placed in the hands of thousands of producers and refiners in all parts of the world. It doesn't cost much.

FOR SALE—Eight 7-200-gallon tank cars, standard gauge, also five 5,000-gallon tank cars, for trolley car track; sixteen 1-ton Koppel coal charging cars for boiler rooms. Immense stocks of Pipe, Valves and Fittings in all sizes. Wire, phone or write. Tate, Fisher & Rice Co., 258 Washington St., Boston, Mass. Telephone Main 8365.

THE SMALL SUM that it costs to insert an advertisement in the Classified Section of The Oil and Gas Journal enables you to place your desires in the minds of men who are always interested in a good proposition.

GENERAL GEAR &
MACHINE WORKS
"If It's Done in Metal, We Do It"
Gear cutting, blacksmithing, machining, welding, die making and metal stamping.
115 South Detroit, Tulsa, Okla.

FOR SALE—80-H. P. Venn Severin Stationary Oil Engine; type I X, 300 R.P.M.; has two cylinders; roller bearing piston pins; piston 18 inches long; in an exceptionally good condition. Inspection at our warehouse in Chicago. Write or call for further information and data. The E. L. Essley Machinery Co., 551 W. Washington Blvd., Chicago, Ill.

FOR SALE—Complete Gasoline Plant, 2 70-H. P. Bessemer gas engines, 1 12x6x 12 Ingersol Rand Compressor, 1 17x12 Ingersol Rand Duplex Pump, high and low and storage tanks, electric light plant. R. W. Russell, St. Marys, W. Va.

FOR SALE—EQUIPMENT

LINE PIPE

For Immediate Shipment

10 miles 2"—12 miles 3"—6 miles 4"—9 miles 6"—5 miles 8" standard line pipe, perfect threads and long recessed line pipe collars. It is all in first-class condition, and can be used for a high pressure oil or gas line.

20,000 ft. 10" 35 lb. casing, and 25,000 ft. 6¼" 13 and 17 lb. casing, in good sound condition.

PLAIN END PIPE FOR
GAS LINES

50 miles ODEE plain end pipe, 3" to 6" in diameter, in double joints of 35 to 40 ft., guaranteed in first class condition. Our prices will enable you to effect a saving of about 50% and cut your installation cost in half, by reason of the double joints.

JOS. GREENSPON'S SONS
IRON & STEEL CO.
Dept. O, St. Louis, Mo.

FOR SALE—150 feet of 70-pound 15½-inch; 1,000 feet 40-pound 10-inch; 2,700 feet 8¼-inch 32-pound 8-thread and 3,400 feet of new 24-pound 6¼-inch 10-thread J. & L. Woodlawn. Special casing; 100,000 feet of 2-inch line; 20,000 feet of 2-inch tubing and rods; also, excellent powers, engines, tanks, and other equipment. J. F. Arnold Co., Decatur, Ind.

BRAND NEW, original crates, 2 No. 4 Toledo pipe threaders for 9", 10" and 12" pipe. Price $185.00 each f. o. b. cars, New York. Allen Ashley, 152 W. 42nd Street, New York, N. Y.

I OUGHT to be able to sell equipment through this section. It must bring good results, because it is filled with Classified Advertisements every week. Guess I'll try it.

GUARANTEED TANK TABLES
Tracings $2.50 to $5.00 according to size of tank. White cloth prints 75c to $1.25 each. Blue prints 25c to 75c each. Send strapping report and instructions to H. F. Heydrick, 208 South 12th Street, Muskogee, Okla.

LEASES—PRODUCTION

FOR SALE—In Ouachita and Nevado Counties, Arkansas, leases and royalties and production and a few good wildcat drilling blocks. Address W. M. Worthen & Co., Camden, Ark.

MARATHON FOLD LEASES
Oil leases northeast of Big Lake Field, in Reagan, Glasscock and Sterling Counties, in tracts 160 acres up, new 10-year lease, 25-cent rentals. Priced $1 to $1.50 per acre. Address B. C. Mann, Garden City, Texas.

OUACHITA COUNTY, Arkansas—Leases or royalties near the proven field can be bought cheap. Address P. B. Orr, P. O. Box 303, Camden, Ark.

NEW MEXICO OIL & GAS LEASES
Forty acres for $10. We offer five-year leases in Valencia, McKinley, Sandoval, Torrence, Guadalupe, Quay, De Baca, Rio Arribba, Soccorro and Chaves Counties, from 25 cents to $1 per acre. Perfect titles and low rentals. Write for maps and particulars.
NEW MEXICAN EAGLE OIL CO.
Sapulpa, Okla.

FOR SALE—At bargain prices, oil and gas leases, production and royalties in the Kentucky shallow fields. For full particulars and maps, address W. P. Harley, Bowling Green, Ky.

FOR SALE.—Large shallow block with some oil and gas production. A good gas contract; market for large amount. Will sell all or part, and develop. Address, Houseman, 1601 South Boulder Ave., Tulsa, Okla.

FOR SALE OR LEASE—Land near 2 deep tests and offsets to drill in Bartlesvlile sand, located 7 miles SW Independence, Kansas. J. S. McQuiston, Route 7.

LEASES—PRODUCTION

200 ACRES near "Coleman" well, Montgomery County, Kansas, in Section 31-32-15e, known as "De Mott" farm; three Bartlesville sand producers, fully equipped, on line. Will sell all or part or lease for test to Wilcox sand. P. H. Ball, Box 251, Independence, Kans.

FOR SALE—Two blocks of leases of 210 and 300 acres in the new Coldwater Trenton Rock Field; shallow; both oil and gas. Dozen good wells completed and a well now drilling against each tract; $15 per acre.

Also a lot of pipe in Oklahoma at one-third what it is worth. U. M. Shappell, Lima, Ohio.

I OWN 40 acres in Section 2, Township 1n, Range 21e, Lake Basin Field, Montana. Will lease. M. J. Ryan, 6612 Seventh Avenue, Los Angeles, Cal.

DRILLING BLOCK
Large block of leases for test well in Shelby-Panola Counties, Texas; proven for shallow gas; semiproven for oil; approved by best geologists. Party must be able to drill in near future.
ADDRESS BOX 116
Carthage, Texas

PRODUCTION—Large or small; drilling acreage, leases, royalties. Make specialty of fee acreage. Large acquaintance in Wichita, Clay, Baylor, Archer, and Wilbarger Counties. Stehlik & Baber, Kemp Hotel, Wichita Falls, Texas.

MISSISSIPPI next big oil State: 10,000 acres leases, Grenada County for well; good geology. W. C. Brooks, 282 S. Front St., Memphis, Tenn.

IF YOU have $100 to $500 to invest on bottom ground 480-acre lease Moran shallow field, don't fail to write immediately for full particulars. Have lease and want to drill two wells; half-mile of production; no promotion scheme—just business. Don't write unless you have the money and mean business. L. E. Lasseter, 213 Dan Waggoner Building, Fort Worth, Texas.

SOUTHEAST New Mexico has opened new field with 37 gravity oil from 1,950 feet with 47 feet of sand. Intensive drilling campaign just starting. We own leases all parts of Southeast New Mexico. Orcutt-Harris & Co., Inc., 816 Colcord Bldg., Oklahoma City.

GUADALUPE COUNTY LEASES

$3.00 AN ACRE

Lease between Seguin and Cibilo River in Guadalupe County, Texas, where dozen of the largest companies in the United States hold leases, and where several tests are soon to be drilled can be had today for $3 an acre. Get particulars.

We also have leases along Marathon Fold and Balcones Fault from 10 cents an acre up. Here are a few of them:

Reagan County	$3.50 an acre
Pecos County	1.00 an acre
Medina County	1.50 an acre
Crockett County	2.00 an acre
Bandera County	.40 an acre
Gillespie County	.10 an acre

30 other counties.

Free map of Texas showing the Marathon Fold and Balcones Fault is given with each inquiry. Write today for our latest list of bargain leases in Texas and free map. No obligation.
GULF REALTY COMPANY
289 Bedell Bldg., San Antonio, Texas

FOR SALE—6,000 acres in Owensboro, Ky., Field. Approved form lease. Straight ⅛ royalty, 25c rental, three known producing sands. Must sell to close partnership. 25c per acre to quick buyer. Write or wire Box 32, Winchester, Ky.

SHEFFIELD TERRACE (Marathon Fold) and Balcones Fault leases. We have good located leases along these faults as low as 40c an acre. Wildcat leases as low as 8c an acre. Free map of Texas showing faults. Get particulars. Gulf Realty Company, 288 Bedell Bldg., San Antonio, Texas.

LEASES—PRODUCTION

SHALLOW FIELDS
Leases in Wichita, Archer, Young, Baylor, Throckmorton, Shackelford and Callahan Counties, Texas. Lowest prices best locations, near drilling wells. Write for list. P. R. McIntosh, 215 Neil P. Anderson Bldg., Fort Worth, Texas.

CLOSE IN LEASE
Half interest in lease about 1 mile from well now drilling Ellis County at $20.00 per acre. Other leases at low prices. W. J. Madden, Hays, Kans.

THE RESULT producing benefits of The Oil and Gas Journal Classified Wants Section is helping the men of the industry to get the maximum good out of their equipment.

Good machinery, equipment, etc., is being kept in operation by reason of alert men buying and selling through the Classified Wants Section.

These men know that it is economically sound for a concern to sell good equipment which it cannot use. Therefore, thrifty executives use the Classified Wants Section as an economising move that is helpful to the entire industry.

Read the advertisements in the Classified Wants Section every week. It will help you.

5,000 ACRES oil lease free to driller or for financing drilling a test well. Or I will give half interest in my 10,000-acre oil lease to the party or company who will finance the drilling of a test well. This lease is all in one body and is located in East Tennessee convenient to Knoxville. Every indication points to a splendid body of oil. Geologist recommends the locality and I feel confident that it will produce oil and gas in large quantities. Drilling depth will run from 2,300 to 3,000 feet. Will be pleased to hear from interested parties. R. H. Whittle, Knoxville, Tenn.

FROM NOW ON, when I want to do business with the real men of the petroleum industry, I'm going to put my advertisement right here in this Classified Wants Section.

FOR SALE—A big bargain, 100-acre farm; 80 acres in cultivation, fair improvements; located in eastern Noble County in oil territory; well now drilling 1½ miles west; one 3 miles north; one 5 miles east and one 6 miles south. Price $5,000, mortgage $1,500; retain one-half mineral rights. C. E. Murphy, P. O. Box 42, Oklahoma City, Okla.

BROKERS and others notice; successful and reliable company can furnish leases, royalties and drilling blocks on dependable structure in best fields. If you care to form company or syndicate write us, we have production and proven property. Ask about our Tonkawa Field offering near the 3,000 to 5,000-barrel wells. Best bank reference furnished. John S. Graham & Company, First National Bank Bldg., Chickasha, Okla.

ONLY $120 will get you 1/32 interest in a well now drilling on well defined structure shown by U. S. Geological Survey. Already had two large showings of gas less than 100 feet; 20-acre lease extra with each interest; easy terms. Big chance for large wells. J. L. Haner, Muskogee, Okla.

FOR SALE—100-acre lease, cheap. Guadalupe County, Texas. Box A-381, care The Oil and Gas Journal, Tulsa, Okla.

WHITE SPACE at the top and bottom of an advertisement makes it conspicuous. Ask for it in your next advertisement. Figure the cost at the regular rates per line.

I HAVE some desirable leases on a big structure in Eastern Kentucky at $1.00 per acre, also coal land, timber tracts and producing properties. E. D. Watkins, Oil Producer, Irvine, Ky.

25 CENTS per line first insertion; 15c per line each additional insertion. Cash in advance.

CLASSIFIED WANTS

MAIL your advertisement now. It will be published next week. Cash with order.

LEASES—PRODUCTION

OIL LEASES on Isthmus of Tehuantepec, Mexico, at very reasonable prices. This district is considered as the Oil Reserve of Mexico, and produces high gravity oil 34 degrees with paraffin base. Good railroads and deep rivers traverse this region, affording unexcelled facilities for transportation. Inquiries solicited. A. J. Rivas, la Iturbide No. 7. Mexico. D. F.

HELP WANTED

THE SCHEME of life is so arranged that some men have capital and need equipment, while others have salable articles and need cash. For these men, The Oil and Gas Journal Classified Section provides an excellent opportunity to broadcast their wants.

SUPERINTENDENTS, engineers, executives, now earning $3,000 to $25,000, will find our individual, confidential service a dignified and effective medium to make desired connections. Personally conducted by Mr. Jacob Penn, the eminent employment authority, known to leading business men throughout America. Not employment agency. Inquiries solicited only from persons with records of successful performance and stability. Jacob Penn, Inc., 305 Broadway, New York

POSITION WANTED

POSITION WANTED—Refinery superintendent, 20 years experience; have built two refineries. Address Box A-390, care The Oil and Gas Journal, Tulsa, Okla.

WANTED—Position by experienced gas man; 18 years' experience in city work, fair knowledge in field work. Address A. W. G., care The Oil and Gas Journal, Tulsa, Okla.

PRODUCTION EXPERT—Know oil business from both business and industrial standpoint. Valuation, appraiser of production, leases, equipment, etc. Accurate detailed reports furnished. Consider any proposition on salary basis. A. P. Dixson, 3704 Garner Avenue, Kansas City, Mo.

WANTED—Position as chief engineer or plant superintendent. Seven years experience in gasoline business. I am now employed but desire change. If your plant is not operating efficiently or if you are building a new plant, I would like to get in touch with you. Box 1077, Breckenridge, Texas.

WHITE SPACE at the top and bottom of an advertisement makes it conspicuous. Ask for it in your next advertisement. Figure the cost at regular rates per line.

SITUATION WANTED with sound, growing company or individual offering a good future in return for hard work, loyalty and study of the business. Have had a varied experience such as manager of a garage, being an expert automobile mechanic; apprentice electrician, high pressure steam fitter and plumber. Have good education; single; age 24; now employed by wholesale grocery in capacity of manager of gasoline department. Desire to permanently connect. State full particulars. Address, Leon Powell, care The Oil and Gas Journal, Tulsa, Okla.

PETROLEUM ENGINEER with 15 years practical experience with major operating companies desires position with company, group or individual, scouting, land or lease department, or reconnaissance work. Fully familiar with States of Oklahoma, Texas, New Mexico, Colorado, Wyoming and Montana. Reference of highest character. Address Box A-370, care of The Oil and Gas Journal, Tulsa, Oklahoma.

POSITION WANTED

HIGH CALIBER Petroleum and Civil Engineer graduate; 10 years' experience; open for connection about September 10. Thoroughly experienced subsurface, structure, tax and construction, capable taking charge of engineering department; age 33; married. Excellent references. Address H. T. K., care The Oil and Gas Journal, Tulsa, Okla.

PETROLEUM ENGINEER with 15 years practical experience with major operating companies desires to represent company, group or individual reporting on and securing leases on structures in south and west Texas where wildcat campaign is now on. Fully familiar with New Mexico, Colorado, Wyoming and Montana. Expenses and interest basis. References of highest character. Address Box A-371, care The Oil and Gas Journal, Tulsa, Oklahoma.

IN READING The Oil and Gas Journal you will be taking the best means possible to keep yourself acquainted with the progresisve developments and changes that are continually going on within the industry.

WANTED

WANTED to interest capital in a real oil proposition. Write us for information. References, Bradstreets, Banks and Supply Houses. Johnston Drilling Co., Inc., El Dorado, Ark.

WANTED—Carbon black plant or gas leases in Louisiana, in district suitable for erection of plant. Address Box A-380, care The Oil and Gas Journal, Tulsa, Okla.

WANT TO BUY 35,000 feet good 2-inch for gas line, also 10,000 feet 3-inch gas line; 100 residence meters in good condition. Edgar Nelson, Elsmore, Kans. or C. M. Sarber, Chanute, Kans.

WANTED—To buy bulk gasoline, kerosene, oil, and filling station. Correspondence confidential. Address Charles T. Marple, Box 373, Bentonville, Ark.

WANTED—To contract with small refinery without sales department to handle their entire output of gasoline and kerosene for year 1925, in northern States. Address A-383, care The Oil and Gas Journal, Tulsa, Okla.

PROMOTER—Have four good permits, 2,560 acres each, Sublet County, Wyoming. Hogback anticline, closed structure, Cretacious formation; want to organize company and develop. C. A. Nichols, 530 14th St., Denver, Colo.

FROM NOW ON, when I want to do business with the real men of the petroleum industry, I'm going to put my advertisement right here in this Classified Wants Section.

WANTED—Promoter; have 16,000 acres in Montana; closed structure; want to organize company and develop. C. E. Honkomp, care First National Bank, Ashton, Iowa.

WANTED—Producing royalties, Oklahoma and Kansas. Give full details. P. O. Box 502, Independence, Kans.

WANTED—No. 27, 28 or 30 Star Machine without tools or boiler. E. A. Keith, Box 332, Martinsville, Illinois.

BUSINESS OPPORTUNITY

WILL GIVE 5,000 acres of good oil land with 84-foot derrick up, ready to set machinery, for a test well. For particulars, address Box A-392, care The Oil and Gas Journal, Tulsa, Okla.

FOR SALE—One Booster Station complete with building, A-1 condition. $800; one loading rack pump, A-1 condition, $300. Box 82 or phone 105, Morris, Okla.

IF I had my Wants listed in this section they would receive the same attention that thousands are giving the good advertisements already here.

BUSINESS OPPORTUNITY

WANTED.—Parties to drill one well for half interest in shallow field in western Kentucky. Address Box A-372, care of The Oil and Gas Journal, Tulsa, Okla.

CONTRACT WANTED.—Have good rotary drilling rig in Mississippi. Would consider contract drilling wildcat to any reasonable depth. Am familiar with Mississippi formation. Have just finished 4,000-foot hole. Address P. H. McLaughlin, Forest, Miss.

CORE DRILL your structure with diamond drills and reduce the hazard of wildcatting. Let us help your geologist correlate structure before you put cable tools at work. The cost is relatively small and the possible saving enormous. On well located tracts we will accept acreage in lieu of profits. Drilling Corporation of America, George H. St. Clair, General Manager, 205 Cosden Bldg., Tulsa, Okla. Phone Osage 8183.

OIL MAN, do you need a telephone at the well you are drilling? We can save you money on the building of your telephone and electric lines. Name the town and distance and we will be glad to submit our estimate on the complete installations. We are equipped and have the experience on telephone, electric and telegraph lines.

OKLAHOMA
HIGH LINE CONSTRUCTION CO.
805 Mayo Bldg.
Tulsa, Okla. Phone Cedar 2551

ADVERTISING RATES

The cost of advertising in the Classified Wants Section is very reasonable. It costs 25 cents a line for the first insertion and 15 cents a line for each following insertion. Six words usually make a line. Cash with the order.

This useful table will help you to figure the cost of advertising in this Classified Section. Keep it for reference:

	One Time	Two Times	Three Times	One Month
3 lines..	$ .75	$1.20	$1.65	$2.10
4 lines..	1.00	1.60	2.20	2.80
5 lines..	1.25	2.00	2.75	3.50
6 lines..	1.50	2.40	3.30	4.20
7 lines..	1.75	2.80	3.85	4.90
8 lines..	2.00	3.20	4.40	5.60
9 lines..	2.25	3.60	4.95	6.30
10 lines..	2.50	4.00	5.50	7.00

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FOR SALE—Tank station, doing a nice wholesale business. Home Oil Co., Hugo, Okla.

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OLD FRIENDS

$50.00 REWARD for information leading to whereabouts of Leon Earl Douglass, oil driller. Communicate with Mrs. L. E. Douglas, Breckenridge, Texas, Box 1208.

ANYONE knowing whereabouts of Dennis ("Denny") F. Byrne, tool dresser, will render his wife a service by communicating with 38 Labelle St., Wilkinsburg, Pa.

FOR SALE MAPS

MAPS

County Maps of Reagan, Upton, Glasscock, Sterling, in section and ownership. These maps are up to date with all wells showing status at time of mailing. Major lease holdings will be placed on in colors for additional charge. Scale: 1 inch= 1 mile. Address "Maps," Box 46, Big Lake, Texas.

PINEY-LABARGE Oil Fields, Wyoming. Large map just completed, 16-inch by 21-inch, scale 1 inch equal 1 mile, shows anticline geology and activity. Price. $1. Kemmerer Savings Bank, Kemmerer, Wyo.

COUNTY MAPS of any county of States of Missouri, Kansas, Arkansas and Oklahoma, 25c. Adams Engineering Co., Oklahoma City, Okla.

BOOKS

SOUTH AMERICAN OPPORTUNITIES is a little book published for the wide-awake, ambitious man and woman interested in the wonderful opportunities in business and the different kinds of employment in this enchanting foreign land. The publisher spent years in South America and tells just what you want to know. Send for your copy of this little book today. Do it now. Postpaid 50c. It may change your whole career. Also contains names and locations of large firms. Questions gladly answered. Latin-American Publishers, Box 1017, Long Beach, Cal.

CHARTERS ISSUED

OKLAHOMA CITY, Okla., Sept. 8.—Four charters to corporations related to the oil industry issued during the last week of August showed capital stocks aggregating $295,000. The largest of these was the Noble Drilling Co., of Ardmore, capital $250,000, incorporators Lloyd Noble and others. Other charters were to the Bosier Oil Co., of Okmulgee, capital $25,000, Harry C. DeVinna and others; the Okemah Oil & Gasoline Co., capital $10,000, E. W. Sibley and others; the Supreme Petroleum Co., of Tulsa, capital $10,000, A. K. Swan and others.

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Oklahoma Production Peak Turning Point Towards Prosperity

NEW YORK, Sept. 8.—That time when Oklahoma oil production reaches its peak will make the turning point toward prosperity in the oil business, according to well informed authority here. He believes there is still considerable production from the deep sands to be uncovered in the present drilling campaign, but he expects the peak will be reached this fall.

The decline, or turning point, in production will be natural, and not due to forced measures, he believes. Operators would "drill their heads off for 30-cent oil," as he puts it, "as long as large wells can be obtained." The present drilling mania will halt, however, when drilling ceases to bring big flush wells, and it will not pay to drill for small ones. Then, in his opinion, there will be a gradual decline in oil production.

The effect of this will be slow because of the present large stocks and possibility of smaller consumption during the winter months. The authority referred to looks for a considerable drain on stocks of oil beginning early next spring.

It is possible, however, that as soon as it is clear that crude oil production is actually declining throughout the country, as it already has in California, prices will move upward.

"One trouble with the oil business," he says, "is that as soon as there is any prospect of improvement, a new campaign of drilling is inaugurated, so that when an increase in demand takes place, or one pool is exhausted, another bigger pool, or series of pools is there waiting to take its place. It does not pay to talk optimism in the oil business."

OKLAHOMA FIELDS

(Continued from Page 40)

fining Co. abandoned the rig for its No. 2, NE cor. Section 21-24-1w.

The McMan Oil & Gas Co. was rigging up to deepen an old well to the Wilcox horizon. It was No. 1, SW cor. SE, Section 27-25-1w, old total depth being 2,531 feet. The Amerada Petroleum Corp. was likewise preparing to deepen an old well, its No. 30 Woods, NE cor. NW NE, Section 34-25-1w, depth being 2,530 feet. The Blackwell Oil & Gas Co.'s No. 3-C Corrigan, NW cor. SE NE, Section 34-25-1w, was drilling at 150 feet.

The Comar Oil Co. was building a rig for its No. 2-W, SW cor. SE NW, Section 34-25-1w, a deep test. The Wentz Oil Corp. was also building a rig for its No. 47 McKee, NW cor. NE SW, same section, another deep one. The Phillips Petroleum Co. was preparing to deepen an old well, its No. 4 Corrigan, NW cor. NE NE, Section 34-25-1w, from 2,556 feet. Another Wilcox test for which a rig was being erected is the Comar Oil Co.'s No. 5-W Williamson, SW cor. NW SE, Section 35-25-1w, old total depth of the well having been 2,525 feet. The same company was starting a new one from the surface in its No. 8-W Endicott, NE cor. NW SW, same section. The Carter Oil Co. was building a rig to deepen an old well, its No. 8 Stewart, NW cor. SW NW, Section 35-25-1w. Old total depth was 2,524 feet.

In Lincoln County, the Union Petroleum & Supply Co. was building a rig for its No. 1, NE cor. NW, Section 36-15-4.

About 15 miles east of Hobart in Kiowa County, the Alcorn Oil Co. had a rig in place for a wildcat tests, its No. 1, SE cor. SW, Section 13-7n-16w.

In Grady County, Stogner and others' No. 2 Farwell, SW cor. NE NE, Section 23-5n-8w, was a 3,250,000-foot gasser in sand at 1,305-50 feet (broken.) The Carter Oil Co.'s No. 1, C SW NW, Section 35-5n-8w, was drilling at 675 feet.

CHARGE DISCRIMINATION IN EXPORT RATES

(Continued From Page 114)

manufacturers, and marketers referred to in paragraph 5 and their traffic, and second, of the other ports on or at the Gulf of Mexico and their traffic in the following respects:

The defendants' rates from the origin territory referred to in paragraph 6 to all of the Gulf ports aforesaid are not properly related and do not preserve to the various origins aforesaid the advantages the transportation conditions and location the several origins dictate, but, on the contrary, give exaggerated importance to conditions other than those of carriage and deprive this complainant of the benefits to which it is entitled.

That defendants maintain and apply higher freight rates on petroleum and its products from the origins referred to in paragraph 6 to the ports of Port Arthur and Port Neches, Tex., than they contemporaneously maintain and apply from the same origins to the other Gulf ports aforesaid; that said rates to Port Arthur and Port Neches, Tex., should be no higher than the rates to any of the Gulf ports aforesaid, but, on the contrary, should be lower where the circumstances and conditions of carriage justify; and that the circumstances and conditions of carriage do justify lower rates in many instances.

That defendants maintain and apply lower freight rates and charges on petroleum manufactured at the refineries referred to in paragraph 5, which is shipped "for export" or "for coastwise movement" than they contemporaneously maintain and apply on the petroleum shipped from points in the origin territory mentioned in paragraph 6 to Port Arthur and Port Neches, Tex., and there manufactured or refined and shipped "for export" or "for coastwise movement" to points in foreign countries or to points in the United States aforesaid.

That defendants maintain and apply lower freight rates and charges on the petroleum shipped from the origin territory mentioned in paragraph 6 to the Gulf ports aforesaid, and "exported" to foreign countries, where it is manufactured or refined and sold at points in foreign countries, than they maintain and apply on petroleum shipped from the origin territory mentioned in paragraph 6 to and manufactured or refined at Port Arthur and Port Neches, Tex., and then shipped to and sold in competition with the petroleum manufactured at points in foreign countries.

PENNSYLVANIA REFINED MARKET LOOKS BETTER

OIL CITY, Pa., Sept. 8.—The market for the refined products of the northwestern Pennsylvania refiners looks better, partly as a result of the improved condition in the Mid-Continent and partly because of increased demand.

Considerable gasoline is still moving, although not as much probably, as during the previous week. The price is now very firm as the result of the increased cost of absorption gasoline in the West, which most of the refiners here use in connection with their product. There has been some talk among the northwestern Pennsylvania refiners of a price advance, but this does not seem likely to occur on account of the low tank wagon market in Ohio and the extremely low selling prices of gasoline in New York State, which comprise an important part of the marketing territory of the Pennsylvania refiner.

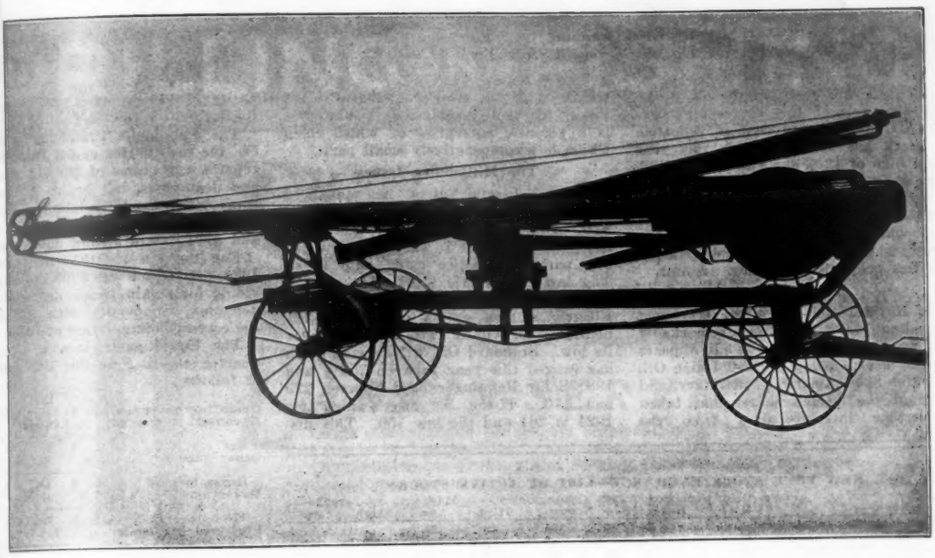
Kerosene is very strong in the local territory at the present time. The price has advanced during the past week again and the demand is very heavy. This is the result of the fall plowing and the harvesting in some sections.

There has been no change in the fuel oil situation.

Wax continues to be very strong and scarce throughout the northwestern Pennsylvania refined district.

Filtered stocks are stronger and the higher test cylinder stocks are in a better condition. Neutrals have not improved.

BUILT TO LAST



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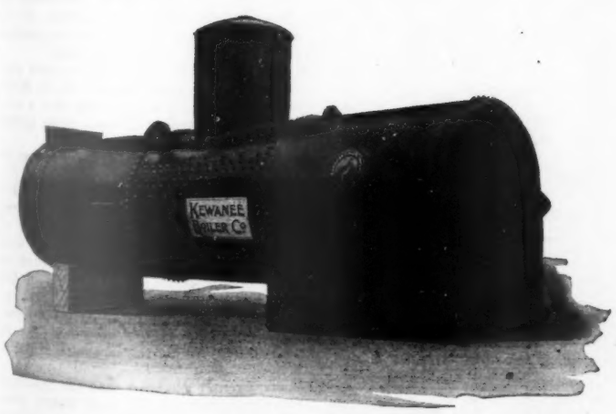

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Buying Retarded in Oil Securities

Caution Uppermost in Minds of Traders, Some Fearing Lower Prices While Others Think Expected Decline Has Been Discounted

By N. O. Fanning
Room 543, No. 30 Church St., New York

NEW YORK, Sept. 6.—Oil stocks were reactionary during the past week, although no spectacular declines were recorded, and no particular significance was attached to the trend. Union Tank Car common, which dropped from 132 to 116, advanced to 119. News of the bringing in of a well by the Venezuelan Gulf Oil Corp. in the La Rosa district of Venezuela, near Lake Maracaibo, imparted some strength to the South American group of oil securities. Weakness in the general securities markets imparted a similar tone to the oils, however.

The tendency in the oil business toward lower prices has retarded buying of oil securities considerably, although in some quarters it is believed that stocks have discounted the expected decline. Caution is uppermost in the minds of traders in oil stocks, however.

The Pan-American Petroleum & Transport issues, which had been quite strong during the past month, finally succumbed to selling, the B stock dropping to 51 and the common to 52 from a high on the last upturn of 58.

With the exceptions noted, the movement in oil stocks suggested no change from the tendency toward irregularity that has characterized them for several months.

Superior Oil

Superior Oil stock was actively traded in during the week and fell to a low of 3½, compared with 8½ not many weeks ago. H. G. Davies, president of the company, states that the company's position is more satisfactory than it has been for many months. He says the company has no bank loans, approximately $600,000 cash in the bank and that its total bonded indebtedness now stands at approximately $700,000.

Officials of the Atlantic Refining Co., when asked if that company had sold any of its interest in Superior Oil, refused to make any comment with regard to the matter.

Transcontinental-Texas Well

Reports from Casper, Wyo., are to the effect that the new Moffat Field in Colorado is showing water in the two wells so far drilled into the Dakota sand. The discovery well is owned by The Texas Co. and Transcontinental Oil Co. and is said to be making about 10 per cent water of 110 degrees with the oil.

Carib Syndicate

Stockholders of the Carib Syndicate at a special meeting ratified the action of directors in waiving the 1924 payment by The Texas Co. on its option on certain properties of the Carib Syndicate. Under the option $200,000 in cash is due soon from The Texas Co. and the resolution adopted by the Carib Syndicate stockholders continues the contract without additional compensation. The Texas Co. to date has paid $300,000 to the Carib Syndicate under the option acquired August 1, 1921, to purchase certain properties.

Phillips Petroleum

Phillips Petroleum Co. has authorized retirement of part of its funded debt this month and arrangements have been made for the purchase and delivery of the bonds.

Standard Oil of New Jersey

It has been remarked in stock brokerage circles that whenever Standard Oil of New Jersey common stock gets down around 34 moderate buying appears which sends the stock up to about 36. Then the price of the shares reacts to about 34, and the process is repeated. The stock has ranged so far this year from a high of 42¼ down to a low of 33, which is a spread of only 9¼ points. The extreme range of Standard of New Jersey common since January 1, 1923, is 13⅜, which is considered remarkably narrow when the general course of oil securities prices is taken into account.

Dutch-Shell

The Royal Dutch and Shell Transport & Trading issues have been remarkably quiet for many months now. It appears that the incorporation of Shell Union Oil, the Dutch-Shell American subsidiary, and listing of the latter's shares, has taken considerable interest away from the securities of the American shares. Yet the Dutch-Shell combine, as a property, is a gigantic enterprise of which Shell Union is a comparatively small part.

The Millionaire Issues

General Electric stock has advanced this year from 193½ to 281, a span of 87½ points. Prairie Oil & Gas stock has come very close to this mark without any particular notice being paid to it. The low on Prairie stock this year is 194½; the high 269. But where General Electric is now selling near the year's high, Prairie Oil & Gas is selling near its low. Standard Oil of Nebraska stock has ranged this year between 256½ and 198; Solar Refining ranged between 225 and 170. Borne Scrymser's high for 1924 is 264 and the low 150. This disparity of 114 points seems to constitute the record for the oil group.

The Panhandle Producing & Refining Co. for the quarter ended June 30, 1924, reports net income of $68,511 after taxes and deductions, but before sinking fund, depreciation and depletion. This compares with $186,635 in preceding quarter and $171,535 in second quarter of 1923.

For the six months ended June 30, 1924, net income was $255,146 before providing for sinking fund, depreciation and depletion, comparing with $323,543 for the corresponding period of 1923.

The Consolidated income account for quarter ended June 30, 1924, compares as follows:

	1924	1923
Operating revenues	$1,141,962	$1,063,331
Expenses, taxes, etc.	1,062,508	879,538
Net	$ 79,454	$ 183,793
Other income	4,820	5,646
Gross income	$ 84,274	$ 189,439
Deductions	15,763	15,451
*Net income	$ 68,511	$ 173,988
Preferred dividends	†58,704	58,704
Balance available surplus and reserve	$ 9,807	$ 115,284

*Before sinking fund, depreciation and reserve. †Cumulative dividends on preferred stock accrued.

Consolidated income account for six months ended June 30, 1924, compares as follows:

	1924	1923
Operating revenues	$2,166,801	$1,920,433
Expenses, taxes, etc.	1,883,674	1,673,897
Operating income	$ 289,127	$ 246,536
Other income	6,310	6,716
Gross income	$ 289,437	$ 253,252
Deductions	34,291	28,709
*Net income	$ 255,146	$ 223,543
Preferred dividends	†117,408	117,408
Balance available surplus and reserves	$ 137,738	$ 106,135

*Before sinking fund, depreciation and reserve. —Cumulative dividends on preferred stock accrued.

NEW YORK STOCK EXCHANGE—LIST OF ACTIVE STOCKS

No.	Stock—	Par	Dividend Rate	Clos. Quotations Sept. 8	Aug. 30	1924 High	1924 Low	1923 High	1923 Low
1.	American Republics	..	..	*36	*36	43	25	..	..
2.	Associated Oil	25	6	28½	29	34⅝	27⅝	29¼	29½
3.	Atlantic Ref., com.	100	..	90	88	140½	78½	160	98¾
4.	Barnsdall "A"	25	..	18¼	19	21⅝	14	35	9⅞
5.	California Pet., com.	25	7	21⅝	21⅜	29	21⅝	28⅛	17⅛
6.	Cosden & Co., com.	..	..	27⅝	27	40½	23½	62¼	23⅝
7.	General Am. Tank	100	†3	45⅝	46⅜	49¼	36½	71⅝	40
8.	General Asphalt	100	..	40½	43⅜	49	31⅝	54	23
9.	General Petroleum	25	8	40½	41	45	38⅝	..	..
10.	Houston Oil	100	..	71⅝	71¾	82½	61	78	40¾
11.	Independent Oil & Gas	10	..	7½	*7	9¼	6⅜	11¼	3⅜
12.	Indian Refining	10	..	5¾	*6	7	3⅜	8½	4
13.	Invincible Oil	50	..	13	12⅜	15⅞	11⅜	19¼	7⅛
14.	Maracaibo	..	..	28⅜	29½	37½	25⅝	28¼	16
15.	Marland	..	..	34½	32⅞	43	29	59⅝	18½
16.	Mexican Seaboard	..	..	22½	21¼	24⅛	14⅛	19¾	5⅜
17.	Middle States Oil	10	..	1½	1⅜	6⅜	1	12¼	3½
18.	National Supply	50	6	*60	*60	72½	55¼	68	54
19.	Pacific Oil	50	†2	48⅜	47⅜	58¼	45	52½	31½
20.	Pan-American com.	20	16	53½	53⅝	61¼	44¼	93½	53
21.	Panhandle P. & R.	..	..	*1⅝	*1½	4½	2	6¼	1¼
22.	Phillips Petroleum	..	†2	33⅝	33½	42½	32⅜	69⅝	19⅜
23.	Producers & Refiners	50	..	29	29¼	43½	22⅞	58¼	17½
24.	Pure Oil, com.	25	6	23⅞	23½	26⅜	20	32	16¼
25.	Royal Dutch, N. Y., sh.	13.40	2.62	42⅝	43½	59½	41½	55⅛	40½
26.	Shell Transport	10	x92½	*35	*34	41½	33	41¼	29½
27.	Shell Union, com.	..	†1	16⅝	16⅝	20¼	15⅜	19½	12⅝
28.	Simms Petroleum	10	..	14¼	13⅞	14⅞	10⅝	16⅜	6½
29.	Sinclair Cons., com.	..	..	18¼	17½	27⅛	15	39⅜	16
30.	Skelly Oil	25	..	19	19	29	17⅝	35	12¼
31.	Standard of California	25	8	58½	57⅞	68½	55½	64½	47½
32.	Standard Oil of N. J.	25	4	35⅜	35⅜	42¼	33	44¼	30⅞
33.	Standard of N. J., pfd.	100	7	118⅝	*118	118⅝	115⅝	118¼	114⅝
34.	Superior Oil	..	..	4⅝	4⅛	8¼	2⅝	6¾	2
35.	The Texas Co.	25	12	40⅜	41	45⅝	37⅝	52⅞	34⅝
36.	Texas Pac. Coal & Oil	10	..	9	9⅛	15⅛	8½	24¾	5⅝
37.	Tide Water Oil	100	4	124	122⅝	151	118½	144	94
38.	Transcontinental	..	..	4⅝	4⅝	6¼	3⅝	14½	1¼
39.	Union Tank, com.	100	5	*114	117	132	94	114	106
40.	White Eagle Oil & Ref.	..	2¼	24	24	29⅜	23⅛	30⅜	20¼
	Standard Oil Stocks								
41.	Anglo-American Oil	£1	25	16	15¼	18	14⅜	19⅜	13½
42.	Borne Scrymser	100	12	*210	*210	264	150	153	110
43.	Buckeye Pipe Line	50	14	57	57½	85½	60	94	57½
44.	Chesebrough Mfg., com.	25	11	49½	*48¾	43¾	29¼	340	205
45.	Continental Oil	25	8	*41	*42	54⅞	42½	50	32½
46.	Crescent Pipe Line	25	..	*12⅛	*12	20	11½	25	15
47.	Cumberland P. L.	100	10	*140	*143	144	109	117	80
48.	Eureka Pipe Line	100	8	94½	*95	105	95	117¼	87
49.	Galena-Signal, com.	100	4	54⅛	*56	69¾	55¼	78	55
50.	Humble Oil & Ref.	25	4.8	36	36½	43⅝	36	41	28½
51.	Illinois Pipe Line	100	12	*130	*130	164	131	171	115
52.	Imperial Oil, Ltd.	25	12	104	106½	119	99	123	92
53.	Indiana Pipe Line	50	16	86	91¼	100	85	103	81
54.	International Pet. Co.	100	x60	20	19⅝	22¼	16⅞	24⅝	13¼
55.	Magnolia Pet. Co.	100	4.5	133	133	160	124	166	123
56.	National Transit	12.50	16	21½	*21½	25⅝	21¼	29	19½
57.	New York Transit	100	10	61	60	97	61	138	70
58.	Northern Pipe Line	100	6	*80	*83	107½	80½	111	96
59.	Ohio Oil Co.	25	8	60¾	61½	79¾	58	85⅝	48¾
60.	Penn-Mex. Fuel	25	..	*32¼	34	46⅝	32⅛	45	10½
61.	Prairie Oil & Gas	100	8	212	21[illegible]	269	194½	272	152
62.	Prairie Pipe Line	100	8	105⅜	106½	111	100	117	93
63.	Solar Refining Co.	100	15	*184	*182	225	170	212	161
64.	Southern Pipe Line	100	16	*90	90	100	89½	116	87
65.	South Penn Oil	100	..	139	142	176	117	196	100
66.	South West Pa. Line	100	8	*[illegible]	8[illegible]	89	80	89	66
67.	Standard of Indiana	25	10	57¼	57⅝	58⅝	54¼	69⅞	49¾
68.	Standard of Kansas	25	..	34¼	34⅛	50⅜	34⅜	56¼	36½
69.	Standard of Kentucky	25	16	112	112¾	120	101	109½	76
70.	Standard of Nebraska	100	20	243	249	256½	198	280	186
71.	Standard of New York	25	5.6	40	39½	48	37⅝	49¾	35½
72.	Standard of Ohio, com.	100	10	*290	288	236	277	320	270
73.	Swan & Finch, com.	100	..	*40	*45	81	20	38	21½
74.	Vacuum Oil	25	10	64½	64½	69¼	56½	55¼	40
75.	Washington Oil	10	10	*30	*29	29	25	28	20¼
	Miscellaneous Stocks								
76.	Cities Service, bks' sh.	..	†21	*14	*14	16	13¼	18½	12¾
77.	Gulf Oil Corp. of Pa.	25	6	60	58½	65	56⅜	68¼	45⅜
78.	Mutual Oil	5	10	10⅜	10⅜	14	9⅜	..	..

*Bid, no sales. †In dollars. ‡The figures in this column are kept up to date as far as possible, but are not guaranteed. xCents per share.

The Oil and Gas Journal's weekly average price of 20 representative petroleum stocks listed on the New York Stock Exchange was as follows:

Sept. 8	47.89	Aug. 4	49.71	June 30		47.69
Aug. 30	47.59	July 28	47.86	June 23		46.92
Aug. 25	47.01	July 21	48.28	June 17		47.94
Aug. 18	47.85	July 14	46.96	June 10		47.63
Aug. 11	47.48	July 7	48.28	June 3		48.88

Nebraska Hearings In Gasoline Cases Are Begun At Omaha

OMAHA, Neb., Sept. 9.—Hearing to determine whether or not a temporary injunction shall be issued restraining 13 oil companies from maintaining an alleged conspiracy to fix prices on gasoline was started in court here today.

T. J. McGuire, assistant attorney general, and Attorney General O. S. Spellman read affidavits asserting that a conspiracy in restraint of trade exists among the oil companies.

Mr. McGuire gave a detailed history of the purpose and operations of the Nebraska Oil Men's Association and the Petroleum Club of Omaha. He declared the association to be a combination of six oil companies, not individuals, with the membership written on the records in the companies' names. Officers of the association at a preliminary hearing, said the avowed purpose of the association is to see that a uniform price is maintained among the members, said Mr. McGuire.

He further charged that the Standard Oil Co. is setting the tank wagon price to retailers and the alleged monopoly has made it hot for any dealer who dared undersell the combines.

Among the defendants are the Anderson-Johnson Oil Co., Manhattan Oil Co., Standard Oil of Nebraska, Sinclair Refining Co., Nebraska, Iowa Oil Co., Stelk Oil Corp., Tidal Refining Co., Omaha Refining Co., Nicholas Oil Co., Shaffer Oil & Refining Co. and National Refining Co.

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CHARACTER OF GASOLINE SHOWS CHANGE

(Continued from Page 116)

the refinery figures for 1924. It would not be surprising, according to many well informed refiners, to see cracked gasoline responsible for 24 or 25 per cent of the total amount of motor fuel, with natural gasoline responsible for at least 11 per cent, bringing the total for straight run gasoline down to 64 or 65 per cent of the total.

Constantly Diminishing

Under modern refinery methods, straight run gasoline is becoming a mere medium for the marketing of cracked gasoline and natural gasoline. When it is realized that about 95 per cent of all natural gasoline is sold to refiners and that practically all of the larger refiners, representing a vast majority of the total capacities of the plants of the country, make cracked gasoline which must be marketed as motor fuel, it is easy to see that motor fuel secured by straight distillation methods is constantly diminishing.

There is no reason why motorists should insist upon straight run gasoline when they can secure U. S. Motor (New Navy) of the following specifications: Maximum initial boiling point, 131 degrees F., (generally 100-120 degrees); must have 20 per cent over at 221 degrees F., must have 50 per cent over at 284 degrees F., must have 90 per cent over at 392 degrees F., maximum end point 437 degrees F.; and recovery must be at least 95 per cent.

In making his motor fuel which conforms to the above specifications, one prominent Mid-Continent refiner declared that he used the following formula, 60 per cent cut from straight crude distillation; 32 per cent cracked gasoline and 8 per cent natural gasoline. For making 58-60, 450 end point gasoline, the formula was varied to as much as 45 per cent cracked gasoline, 45 per cent straight distillation cuts and 10 per cent natural gasoline. Other refiners follow different formulae with proportions according to their processing methods. It is common knowledge that the average Mid-Continent refiners use from 5 to 15 per cent natural gasoline in making their motor fuels, with an even larger percentage in the higher gravity products such as the 64-66, 375 end point export gasoline.

U. S. Motor Gasoline

It is the assertion of refiners that U. S. Motor (New Navy) properly blended from the three constituents mentioned above can be made to follow the typical straight run distillation curve with only a negligible difference. The use of natural gasoline permits deeper cuts into the crude and the introduction of more cracked gasoline into the motor fuel, as the natural gasoline brings up the gravity and gives it the required initial boiling point.

The prevalence of blending at the refineries as practiced today brings up the question of an ancient prejudice against natural motor gasolines or blends, which has existed since the time of the wild casinghead and kerosene blends that did much to put the natural gasoline industry in disrepute so far as direct sales to the motorists were concerned. Under present conditions blends made by gasoline plant operators form a very small part of the total amount of motor fuel sold and like the straight run gasoline, is gradually fading from view.

The reason for this change is laid at the door of the modern refiner also. Following the bad reputation laid upon wild casinghead and blends, the refiner seized upon the opportunity to grab all available natural gasolines for his own use. Naphtha prices became too high for shipping and blending at the natural gasoline plants, and the gasoline manufacturers soon saw the wisdom of taking advantage of the better economy secured in blending at the refineries.

There is no reason, however, why natural gasoline manufacturers cannot make good motor fuel by blending, provided they use the proper materials in the proper proportions. Much of the prejudice against the blends sold several years ago was due to one of two reason. In many instances, wild gasoline vapors were present in the blend which caused bubbles of gas to form in the feed lines from the tank to the engine of the automobiles in which the blends were used. In other cases, kerosene had been used in blending with the casinghead and as a result a motor fuel with an extremely high end point was produced which resulted in imperfect combustion, crank case dilution and carbon formation within the cylinders.

Now that practically all motor fuel is blended in some form or other, it is not improper to say that much of the prejudice against motor natural gasoline or blends is baseless. It is with these products as it is with other products of the refinery and natural gasoline plant. They can be made good or bad according to the care in processing.

Natural Motor Fuel

"A good blend is a natural motor fuel," is the declaration of one large natural gasoline manufacturer. "The casinghead gasoline was formerly a part of the crude oil, and is only one cut higher than the 68-70 gravity straight run gasoline. It, however, was distilled by nature rather than mechanical devices. Blenders should avoid giving their gasoline more than the original quota of the natural product when they are blending for a motor fuel. A proper blend is a good motor fuel and forms a boost for the manufacturer."

In many parts of the United States and Canada, the higher gravity blends are in distinct favor, particularly during the winter seasons, when products of high volatility are desired, so that excess choking in starting and the resulting crank case dilution may be avoided and the production of carbon eliminated to some extent. Under modern methods this type of gasoline can be produced by straight distillation only at great loss of profit to the refiner.

Physical Properties

Regarding the physical properties of blends and other motor fuels, there has been an endless and profitless controversy. As stated previously in this article the aim in the production of motor fuel either by blending cracked, natural and straight run gasolines in the refinery or by blending naphtha cuts and natural gasoline at the gasoline plant is to secure a product which will operate a gasoline engine in an efficient manner and which will adhere to the specifications adopted as standards for the best motor fuel. For the operation of motor cars, many well informed refiners, as well as natural gasoline plant men, asert that a natural gasoline-naphtha blend, properly made, is just as effective as the ordinary refinery gasoline.

"The volatility, or readiness with which a liquid will tend to evaporate, is measured by its vapor pressure," in the expression of George B. Oberfell, one of the leading Mid-Continent natural gasoline plant engineers. "For any given temperature, a substance will have a definite vapor pressure. Raising the temperature of a liquid results in an increase in its vapor pressure. When the vapor pressure of a liquid is equal to or rather a trifle greater than that of the atmospheric pressure upon the liquid, the phenomenon of ebullition, known as boiling, takes place, and the temperature of the liquid under such a condition is referred to as the boiling point.

"It has been proven, as far as practical results are concerned, that the vapor pressure of pairs of liquid mixtures can be expressed as simple functions of their composition. A blend of natural gasoline with naphtha or other petroleum product is a homogenous mixture of closely related liquids. For such a pair of liquids may be applied the following equation: $P=P_1+P_2(1-X)$.

"In this equation "p" is equal to the total vapor pressure above the solution and "P_1" and "P_2" are the vapor pressures of component "1" and component "2" prior to blending. "X" represents what is known as the mol fraction of component "1."

Mr. Oberfell contends that the old belief concerning the stratification of blended products, or a separation of the com-

ponent parts of a blended motor fuel is erroneous. He asserts that the liquid products of gasoline vapors and the various cuts of petroleum are miscible in all proportions and that they will not separate due to the difference in gravity, but that they will form a homogenous mixture when brought together. It is not necessary for agitation to be employed, if sufficient time is given for the two products to mix. A homogenous mixture sometimes is hard to obtain, and failure to obtain such a mixture can be attributed to the operator rather than the character of the component parts. If stratification were a natural process, and if the parts could be separated according to gravity, it would be possible to separate the parts by means of centrifuges. Tests with blends, however, have proved that this is impossible.

Natural gasoline plant engineers agree upon the necessity for the observance of extreme care in blending, in the production of motor natural gasolines. The proper place in the manufacturing process for the introduction of the naphtha or petroleum cut should be determined after close study of the plant processing methods and the product obtained. In compression gasoline manufacture, the benefits of both hot and cold blending should be considered. In the manufacture of absorption gasoline, the proper method of blending is of just as much importance.

Natural Gasoline

Natural gasoline plant operators, however, as well as the Mid-Continent refiners, are satisfied that blends at gasoline plants, like the old straight run motor fuel, is passing with the introduction of modern refining methods. It is generally conceded that the refiner with his own gasoline plant and vapor lines from look boxes, tankage and loading rack is in as good a position to utilize all gasoline vapors as the natural gasoline manufacturer. On the other hand, he is able to utilise a small amount of natural gasoline in perfecting the manufacture of a large amount of motor fuel, permitting less handling and more economy than was possible under the old system of blending at gasoline plants.

The cracked-natural-straight run gasoline blend of today is a superior product to the casinghead-kerosene blend of yesterday, as it is also superior as a motor fuel to the straight run gasoline of 1913. On the other hand, the "straight run gas," of many service stations, is either an effort to mislead motorists or is a small fraction made and sold uneconomically in the face of conditions which demand of the refiner that he must make every drop of crude oil charged to stills deliver its portion of profit.

OIL INVESTIGATION EXTENDED TO MEXIA

WASHINGTON, D. C., Sept. 6.—The Government's oil investigation involving former Secretary of the Interior Fall and others, seemed likely to be extended to the Mexia, Texas, Field, when attorneys for the Government asked that 16 persons be brought before the special Federal grand jury in session here presumably to tell what they know of operations there. The action taken at the request of former United States Senator Atlee Pomerene and Owen J. Roberts, special counsel for the Government, caused surprise, since the Government owned no public land in Texas.

The attorneys declined to say what is behind the action, explaining they can not afford to make public their information. During the original investigation into oil leases conducted by Senator La Follette, operations in the Mexia Field were brought into the hearings. The Walsh committee, however, confined its activities to Teapot Dome and the California Field, and it is upon the latter investigation that the attempted prosecution of Fall and others has been based.

A. C. Harvey, an attorney of Columbus, Ohio, was the first witness appearing before the grand jury, but declined to indicate what he had told the grand jury. His subpoena required production of all correspondence and contracts "concerning the Mexia Field."

OIL HEATING MEDIUM FOR FORGING USES

Some interesting observations on the subject of the application of fuel oil to forging furnaces are contained in the "Drop Forger," the journal of the Association of Drop Forgers and Stampers, Birmingham, England. They consist of notes from two papers presented by John A. Johnston and Albert Constable to the Birmingham Association of Mechanical Engineers and the Wednesbury Engineering Society respectively; and the principles set out are of importance in those cases where oil is used as the heating medium for drop forging furnaces.

The fuel oil available nowadays is obtained from two principal groups of petroleum crude oils, one classified as paraffin-base oils, and the other as asphalt base oils. The chemistry of petroleum and its products is a very complicated subject, and one which demands special study by qualified experts. Crude oil is a mixture of compounds of hydrogen and carbon (with some impurities), and oils of the paraffin series contain hydrogen in the value of twice as many +2 of the carbon element per molecule, whilst asphalt base oils contain hydrogen in the ratio of twice as many as the carbon element per molecule. Paraffin base oils are generally very fluid, whilst asphalt base oils are usually very viscous and possess a sulphurous smell. There is no definite relation for all oils between the specific gravity, viscosity and temperature at which oils congeal, but light, freely flowing oils do not require heating for transmission along pipe lines, and very little for atomizing purposes; on the other hand, heavy oils are usually viscous to a much greater degree, and a much higher temperature is required in the oil at the burners. Shale oil, creosote and gas oils are available as fuel, but are not as yet serious competitors to the petroleum oils, although in Germany heavy gas oils appear to be used.

As to their transmission to the furnaces, the pressure feed or circulating system is the one best suited to present-day and future requirements, because, as time goes on, fuel oil will become heavier, more viscous and difficult to burn, so that the layout for feeding and conditioning the oil must be contrived with these circumstances borne in mind. Heating the oil, filtering and keeping it hot up to the burners are important. Tests have shown an economic advantage in heating the oil to within 10 per cent of the flash point, and thermometers should be fitted in the oil main to check the temperature. Overheating will give trouble by the formation of gas pockets causing puffing at the burners, and also may cause the oil to split, depositing carbon, with consequent choking of the pipes. Thermostats may be included in the installation to control the oil temperature. No definite statement can be made as to the best oil pressure for the most effective distribution and combustion, but pressures between 8 and 25 pounds are usual. Temperature of the oil will influence a pressure. A reduced consumption may be observed when burning heavy oil as compared with lighter oils, and provided correct heating and really effective filtering is carried out excellent results can be obtained.

HARRISON COUNTY, TEX., HAS ANOTHER GASSER

SHREVEPORT, La., Sept. 8.—No. 1 Waterman well of the Thigpen, Herold & Muslow interests in Harrison County, Texas, blew in at 951 feet while operators were attempting to set 8-inch casing with an estimated gas production of 12,000,000 feet. The well ran wild and efforts were made to kill it with cement casing.

The well is 2 miles northeast of Bell & Mays' Bryerson No. 1, which blew in at about the same depth several days ago making 25,000,000 feet of gas. The new well assures another shallow gas field for supplying Shreveport with additional fuel.

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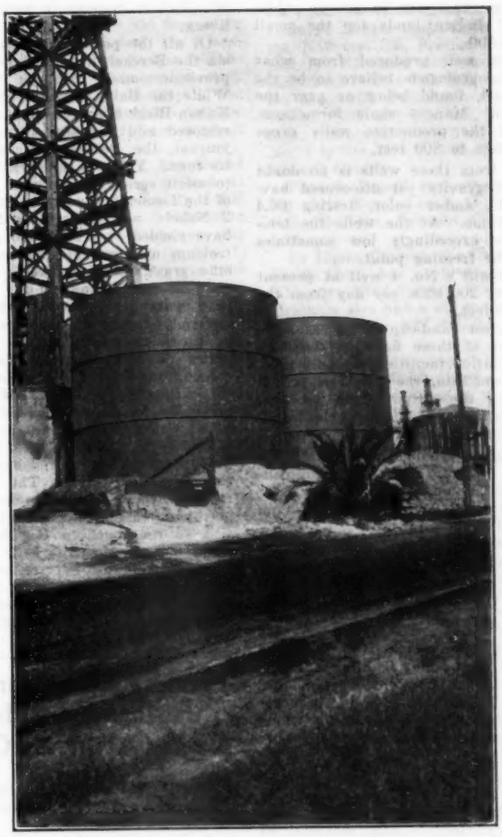

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Prompt, Dependable Export Service

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MALONEY PATENTED BOLTED COPPER-STEEL TANKS

MALONEY
"ALONE"

New Mexico Field As Seen By Texan Recently Returned

WICHITA FALLS, Tex., Sept. 6.—Returning after a three weeks' trip throughout the oil fields of New Mexico, C. L. Anderson, contractor of Wichita Falls, brought back samples of oil from the Rattlesnake wells owned by the Santa Fe Oil Co., organized by S. C. Munoz, president of the New Mexico Central Railroad. The lease comprises 4,000 acres which was bought at public auction of Indian lands for the small sum of $1,000.

The first well produced from what some of the geologists believe to be the Dakota sand, found below or near the base of the Mancos shale formations. Depths of the productive wells range from 650 feet to 800 feet.

The oil from these wells is no doubt the highest gravity yet discovered having a light amber color, testing 66.4 degrees Baume. At the wells the temperature is exceedingly low sometimes reaching the freezing point.

The company's No. 4 well at present is producing 200 bbls. per day from the sand at 780 feet.

The greatest handicap to an extensive development of these fields is the lack of transportation facilities, the only pipeline at present being the Mid-West, which only carries the output from its own wells located on the Hogback lease, 10 miles east of the Rattlesnake.

This lease is producing approximately 1,500 bbls. daily of 64 gravity oil considerable darker or about the same color as Pennsylvania crude, all producing from the 700-foot level.

As far as the "Texas mule skinner" is concerned the word is unknown in that part of the country. Here they are known as freighters, the work being done entirely by the native Pueblo Indians and one of whom presents an unusual sight to the stranger, sitting back of four to six cow ponies hauling 8 to 10 joints of 4-inch. All wear the big hats, some with hair braided, while others array themselves with ribbons around their foreheads, each one with earrings of turquoise. Navajo blankets are used as cushions.

His idea of oil field prices also differ somewhat from those of the Texas field, being content to haul material 40 miles for 45 cents per 100 pounds, and a machine, boiler and tools are transported and delivered on the lease a distance of 40 miles for the sum of $250 over a road unusually rough and with many steep grades.

Where the wells are located the surrounding country is absolutely devoid of vegetation of any kind. Even cactus and mesquite fails to eke out an existence.

Fifteen miles west of Farmington, which is the center of a fertile valley to this point San Juan Valley, is one continual line of orchards and alfalfa fields stretching as far as the eye can see with an abundance of crystal water flowing down the sides of the mountains lending a helping hand in an effort to make the valley a veritable land of plenty.

The opinion of the people living in the vicinity of these wells is that they have a great productive area which will later be developed with the advent of outside capital.

Acreage can be secured for $1.50 to $3.00 per acre with a 10-cent to 25-cent rental for a period of five years. On Indian lands there is a 1-20 royalty instead of the one-eighth, which is customary in other oil fields throughout the country.

GEORGE J. WOLF ILL.

George J. Wolf, solicitor for the Benedum-Trees interests, has been seriously ill at Meadville, Pa. Mr. Wolf has for nearly 50 years been conspicuous in oil and gas litigation.

RUSSIAN PRODUCTION INCREASED IN JULY

A Baku report says that a flowing well has started at well No. 309, Balachany, with a daily discharge of 15,000 poods, with a tendency to strengthen. Its neighbor, No. 308, has been flowing three years, during which its has delivered over 10,000,000 poods. A spouter is expected at No. 47, same series, and preparations are being made to govern the flow. The discharge of gas at No. 24, Bibi-Eybatt, is tremendous. It is to be plugged. A gasometer is being installed. No. 4 well Bibi-Eybatt growns in intensity of delivery.

Of all the petroleum districts of Russia the Berekei district alone has had no provision made for its development. While the Baku, Grozny, Emba and the Kuban-Black Sea areas have already been restored and are busy, says a Moscow journal, the Berekei district is waiting its turn. Yet it is sufficiently important to merit serious attention. Wells No. 1 of the former firm of Quanstrem, and No. 2 Nobels no deeper than 214 sazhens, have yielded over 5,000 000 poods of petroleum of excellent quality, 0.870 specific gravity. These wells have shown that the underground of the Berekei district contains reserves of petroleum in industrial quantities. Unfortunately there is water, frequently warm, the levels of which are not separated from the petroleum ones; and that is what put a stop to drilling between 1902 and 1907. But technique has now sufficiently advanced, as at Grozny, where water temperature rises in places to 80 degrees, but does not prevent the isolation and exploitation of the petroleum levels. The Berekei petroleum deposit is in that zone of gas and petroleum that stretches from Chos Mensilia in the south to Kayakenta in the north, near Derbent.

Reuters Trade Service reports from Leningrad the production of crude oil in Russia during July amounted to 35,600,000 poods, an increase of 5,500,000 poods compared with June.

Trade Association Rights Considered By Attorney General

WASHINGTON, D. C., Sept. 8.—The next move in the determination of a final Federal policy with respect to the statistical activities of trade associations is up to those organizations themselves it was indicated at the Department of Justice.

Attorney-General Stone, it was said, has in preparation a series of cases which may finally clear up the scope of the rights of trade associations in collecting and disseminating statistical data and these cases will be relied upon to fix the Government's policy unless the associations can suggest more typical cases.

PANHANDLE GAS WASTE

WICHITA FALLS, Tex., Sept. 6.—Oil operators in the Texas Panhandle must take steps to prevent the waste of natural gas, it is announced. The district supervisor for the Railroad Commission, T. L. Coplin, has received instructions to require the use of water and mud to seal off gas. It has been estimated that more than 100,000,000 feet of gas is being wasted daily in the Panhandle, mainly in Carson and Hutchinson County wells. Panhandle operators have objected to conservation rules being enforced, claiming there would be no market for the gas if conserved and that the aditional expense would not be justified.

MEETING OF A. M. O. A.

CHICAGO, Sept. 6.—John D. Reynolds, secretary of the American Oil Men's Association, has been in the East during the week. The purpose of his trip was to secure speakers for the coming semi-annual meeting of the organization, which has been announced for a date to be named, during October.

Fatal Refinery Fire At Franklin Works Of Atlantic Refinery

OIL CITY, Pa., Sept. 8.—Two were burned to death, another probably fatally injured and seven others painfully burned in one of the worst fires in the history of the Atlantic Refining Co.'s Eclipse works at Franklin today.

The bottom dropped out of one the stills; an explosion resulted and almost immediately a hot fluid was flowing over the scene engulfing everything in its path. Several oil tanks caught fire and the flames communicated to other stills.

The property loss is expected to be enormous. The dead are William Swartz, aged 26; and Carl Witherup, both of Franklin.

SOUTH AFRICA TURNS HOPES TO SHALE OIL

There appears to be a strong desire on the part of South Africans to develop the potential oil resources of the Union, and progress in that direction seems likely to be much more rapid than corresponding measures in the United Kingdom, says the London Petroleum Times. This acitivity in South Africa is taking the form chiefly of organizing companies to exploit the oil-shale deposits known, and in prospecting for other deposits. The hope of finding liquid petroleum in commercial quantities is not great, and, wisely, the efforts that are being made are devoted mainly to the exploitation of more certain resources.

A factor in favor of the exploitation of domestic resources is that oil imported into South Africa is considerably more expensive to the average consumer than to the English consumer, because it is shipped to that country in relatively small quantities, mostly in the form of finished products, and often has to bear the cost of a long inland transport before it reaches the user. The prospects of producing alcohol on a large scale locally have been considered, but local opinion and enterprise seem to favor the development of mineral rather than vegetable sources for producing liquid fuel.

DIAMOND HILL REFINERY.

FORT WORTH, Tex., Sept. 6.—A permit for the extensions to the Gulf Refining Co.'s plant in Diamond Hill, which is estimated to cost $750 000 to $1,000,000 has been issued by Building Inspector Males of Fort Worth.

The permit as issued called for $700,000 construction, but as the program will extend over a period of several months, according to John W. Tryon, general superintendent of the Gulf Refinery at Port Arthur, it is believed the maximum estimate may be reached.

The grounds have been doubled in size and several new batteries of new stills will go in as a result of the addition.

OHIO CO. GETS LAVOYE

CASPER, Wyo., Sept. 6.—The town of Lavoye, in the heart of Salt Creek oil field, has lost its last appeal to the Interior Department and the occupants must vacate. Homestead right to the tracts, then Government open land, was granted in 1919, the Land Offices not taking cognizance of the fact that the tract was in the heart of the Salt Creek Field. The Ohio Oil Co. had Government leases upon the tract and wanted to drill wells to which the residents objected. The Interior Department ordered the homestead claim revoked and legal proceedings were started by homesteaders to prevent the Government from taking the homestead back.

DENIES SOVIET NEGOTIATIONS

In an interview published by Middenkoers, an Amsterdam financial journal, Sir Henri Deterding denies press reports of negotiations by Royal Dutch with the Soviet Government.

USE OF OIL AND GAS IN ELECTRICAL WORK

A decreasing consumption of coal in the production of electricity by public utility companies in the United States, an increase in the use of fuel oil and a large increase in the use of natural gas is shown in figures just made public by the United States Geological Survey.

Coal used for this purpose declined from 2,820,908 tons in May to 2,778,220 in July, while fuel oil used increased from 1,209,226 bbls. in May to 1,391,120 in July and natural gas used increased from 3,017.840 thousand feet in May to 5,037,693 in July.

California led, using 636,751 bbls. of fuel oil in July against 468,178 in May. Oklahoma was second with 232,000 against 210,000; Florida used 79,000; Kansas 74,000 against 95,000 in May; Rhode Island 63,000 against 77,000 in May. The Pacific States and the West South Central States consumed almost three-fourths of the fuel oil used for making electricity by public utility companies.

In the use of natural gas for this purpose California showed a remarkable increase, 2,834.902 thousand feet in July against 979 908 in May. Texas was second with 853,418; Oklahoma third, 402,411, and Kansas fourth, 345,819. The west South Central States used 1,582,822 thousand feet in July but were passed by California which nearly trebled its consumption of natural gas between May and July.

COTTON VALLEY FIELD IS EXTENDED 1½ MILES

SHREVEPORT, La., Sept. 9.—The Cotton Valley Field was extended 1½ miles southeast by the completion by Moffat and Murphy of the Alabama Petroleum Co.'s No. 1 Pardee, Section 24-21-10, which flowed 1,000 bbls. of clean oil of 30 gravity. The well was completed at 2,511 feet. It flowed through a 4-inch line with quarter-inch choke. The well stopped flowing but when the choke was removed it again started flowing at the rate of from 750 bbls to 1,000 bbls. daily.

SINCLAIR OFFICIALS HEARD

WASHINGTON, D. C., Sept. 6.—Henry L. Phillips and E. J. Bullock of Chicago, both officials of the Sinclair Crude Oil Purchasing Co., were called before the Federal Grand Jury here which is investigating the official acts of Albert B. Fall. They were summoned at the request of the Government's special counsel. The Sinclair Crude Oil Purchasing Co. occupied certain lands in the Teapot Dome oil reserve acquired from the Mammoth Oil Co., lessee of the reserve. In its civil suit, filed at Cheyenne, the Government sought to eject the company as a trespasser.

IMPROVE PIERCE REFINERY.

Considerable repair work and several new installations are being made at the Sand Springs refinery of the Pierce Petroleum Corp., near Tulsa. The repair work includes the remodeling and enlarging of the wax plant. New equipment is being installed in the machine shop and power house. New tankage, tank cars, trucks and other items are also included in the work which is keeping about 200 men busy. A cracking process will be installed soon, it is reported. With the completion of all contemplated improvements the refinery will completely refine all oil run.

COLONEL STEWART TO TESTIFY.

CHICAGO, Sept. 6.—R. W. Stewart, chairman of the board of the Standard of Indiana, will leave for Jefferson City, Mo., in due season and be present when the hearing resumes before the supreme court on September 10. Any information he may possess as to the operations of the company in that State wgill be given to the attorney general.

California Process To Be Used by New Refining Company

SHREVEPORT, La., Sept. 6.—With the organization of the Southern Oil & Refining Co., the headquarters of which will be at Houston, Texas, with branch offices at Shreveport, La., and other points, the grouping of another complete unit in the refining industry has been perfected. W. G. Banks, of Shreveport, formerly head of the Land Department of the Atlas Oil Co., who more recently has been engaged in the refining business in the El Dorado district, has been named as president of the new company, while W. P. Hobby, ex-Governor of Texas, has been elected treasurer. L. H. Gray, of El Dorado, is secretary. The refining activities of the new organization are to be in charge of E. L. DeCamp, a refining engineer from California, who has done much toward developing the process which will be used in its plants. In its directorate are found also the names of John H. Kirby, lumberman, of Houston, Texas; A. W. Baird, merchant, of Shreveport, La.; and P. E. Murphy, banker, of Junction City, Ark.

The Southern Oil & Refining Co. is expected to have, when pending negotiations have been finally completed, a total refining capacity of more than 6,000 bbls. of crude oil per day in plants located at Oil City, El Dorado, Ark., and Houston, Texas.

The new company has acquired a 1,000-bbl. cracking plant at Oil City, formerly owned by C. Roussell and the Associated Refining Co., the operation of which is expected to be resumed this week. The grease and asphalt plant at Oil City, formerly owned by the Union Oil & Pipe Line Co., also has been acquired; and its operation is expected to be resumed at once. Pine Island Heavy, Smackover, and Nevada County crudes are to be used. A particularly high grade product is expected to be obtained from the latter crude, which is said to possess unusually desirable qualities for the manufacture of lubricating oils. In this connection, recent reports from Arkansas are to the effect that the Calumet Refining Co., of Chicago, also has become active in the acquisition of the 14-gravity oil produced in Nevada County, having purchased a large quantity from Smitherman & McDonald, of Shreveport, operators in that field.

Negotiations for the acquisition by the Southern Oil & Refining Co., of a 1,500-bbl. topping plant in the El Dorado district are now nearing completion. It is planned to enlarge and extend this plant by the addition of cracking units. Other negotiations not yet formally completed are expected to result in the incorporation in the new combination of a 3,000-bbl. cracking plant and lubricating refinery, located in the ship channel, at Houston.

The "California Cracking Process" will be used in all the company's plants, having already been installed in the Oil City plant, acquired from the Associated Refining Co. This process involves the cracking of oil under extreme heat while in the vapor phase. One of its virtues, as claimed, is that emulsified oil can be introduced directly into the stills without first having been dehydrated; in fact, a small percentage of water or steam is a requisite to the process. The plant at Oil City was operated for a short time during the current year on oil produced in the Sarepta district of Louisiana, where dehydration presents a most difficult problem.

GERMAN MOTOR SPIRIT DOWN

The German Reich Spirit Monopoly is compelled by law to take over a certain amount yearly from the manufacturers. In consequence of the large stocks thus accumulated and the lack of demand, the price for spirit for motor purposes has been reduced from 20 marks to 12.50 marks the hectolitre, although it is stated that the spirit actually costs the Monopoly Office 55 marks.

Late News From the Fields

OKLAHOMA

The twenty-first deep sand well in the Tonkawa Field was brought in by the Comar Oil Co. in its No. 1 Gaume, NW cor. NE, Section 2-24-1w, Noble County side, and extended the field a location east of the Gypsy Oil Co.'s No. 84 Shawver. The Gaume well topped the sand at 4,011 feet and found the pay at 4,030 feet, good for 175 bbls. an hour with the bit 5 feet in. This producer contributed enough oil overnight to stop the decline in the field's production, which had allowed the figures to drop more than 5,000 bbls. in three days. Saturday's gauge of the deep sand producers was 81,176 bbls.; Sunday's, 79,166 bbls.; Monday's, 76,256 bbls.; and Tuesday's, 76,098 bbls.

The daily average production of the Cromwell Field for the week ended September 3, was 51,425 bbls. from 84 wells, a drop of 8,923 bbls. with one additional producer. The Wewoka Field remained practically stationary, reporting 7,026 bbls. from 67 wells, a loss of 19 bbls. and a gain of one well. The Gilcrease-Papoose Pool had 4 new producers and as a result gained 649 bbls over the previous week, producing 12,320 bbls. from 44 wells during the week ended September 3. The Stroud Field reported 6 new wells, raising its number to 48, but slumped to 17,963 bbls daily in spite of that, a loss of 1,551 bbls.

There were more drilling wells and rigs up in the State on August 30 than during the previous week but the total of operations fell to 1,396, a decline of 24. On the latter date there were 68 locations, 200 rigs up, 757 wells drilling, 304 wells shut down and 67 completions, a gain of 29 drilling wells and 8 rigs, but a loss of 19 locations, 8 wells shut down and 34 completions.

The McMan Oil & Gas Co. was building a rotary rig to deepen its old well, No. 3 Warren, SE cor. SW SE, Section 27-25-1w, to the Wilcox horizon. The same company was also building a rig for its No. 5, SW cor. SE SE, same section. The Texas Co. had a rig on the ground for its No. 7 Gillett, SW cor. SE SW, same section. The Amerada Petroleum Corp. was drilling at 1,365 feet in its No. 36 Woods, NE cor. SW NE, Section 34-25-1w, and at 1,102 feet in No. 37 Woods, SE cor. NW NE, same section. The Blackwell Oil & Gas Co. was drilling at 1,010 feet in No. 3-B Corrigan, NW cor. SE NE, same section, and at 1,199 feet in No. 4-C Corrigan, SE cor. NE, same section.

The Comar Oil Co. was rigging up its No. 2-W, SW cor. SE NW, Section 34-25-1w, and was drilling at 1,390 feet in No. 4-W, NE cor. SE NW, same section, and at 1,070 feet in No. 8-W, NE cor. SE, same section. The Wentz Oil Corp. was rigging up its No. 47 McKee, NW cor. NE SW, Section 34-25-1w.

The Phillips Petroleum Co. abandoned its No. 1 Corrigan, SW cor. NE NE, Section 34-25-1w, at 2,001 feet and was building a rig for its twin, No. 7. The Carter Oil Co. was drilling at 730 feet in No. 11 Stewart, SW cor. NW, Section 35-25-1w, and was building a rig for No. 12 Stewart, SE cor. SW NW, same section.

The Comar Oil Co.'s No. 2-W Endicott, NW cor. SW, Section 35-25-1w, was drilling at 1,345 feet and No. 3-W, SE cor. NE SW, same section, was down 245 feet. No. 8-W Endicott, NE cor. NW SW, same section, was rigging up. The Comar's No. 4-W Williamson, NW cor. SW SE, same section, was drilling at 111 feet, and No. 5-W, SW cor. NW SE, same section, was rigging up. A rig was being built for No. 6-W Williamson, SE cor. SW SE, same section.

On the Noble County side, the Comar Oil Co. was rigging up its No. 4-W Ellsworth, NE cor. NW NE, Section 2-24-1w, and building a rig for No. 10-W Ellsworth, SE cor. NW NE, same section. No. 9-W Carmichael, NE cor. NW NE, Section 3-24-1w, was drilling at 1,122 feet, and No. 15-W Carmichael, SW cor. NE NE, same section, was rigging up.

In the Cromwell Field, the H. F. Wilcox Oil & Gas Co.'s No. 7 Bruner, C SE SW SW, Section 15-10-8, was making 100 bbls. daily from sand at 3,425-35 feet. The Gilliland Oil Co. and others' No. 3 Proctor, C SE SW NE, Section 16-10-8, ran into water at 3,594 feet and was plugged back to 3,588 feet. The water was shut off but the well was doing only 28 bbls. daily from the sand topped at 3,538 feet. The Hoffer Oil Corp. and others' No. 4 Stidham, C SW SE NE, Section 16-10-8, was swabbing 59 bbls. daily from sand at 3,491-3,560 feet, after plugging back from 3,660 feet. The Amerada Petroleum Corp. shot its No. 7 Bunner, C NW NW SE, same section, with eight quarts and the production in the following 17 hours was 300 bbls. It later dropped to 285 bbls. daily from sand at 3,512-69 feet.

In Northern Kay County, the Grand Island Oil & Gas Co. was drilling at 2,538 feet in its old well, No. 1, C SE NE NW, Section 15-28-1e. Offsetting the Comar Oil Co.'s pool opener, the same company was spudding its No. 1, SE cor. NW, Section 21-29-1w, and was rigging up its No. 1, SW cor. NE, same section.

In northwestern Pawnee County, Watchorn Pool, the Marland Refining Co.'s No. 4 Miller, CSL SE NW, Section 33-23-3, was good for 1,080 bbls. from sand at 4,069-79 feet. It was an old well. The Watchorn Oil & Gas Co.'s No. 11 Miller, south offset to it, made 612 bbls. from sand at 4,035-47 feet. The Magnolia Petroleum Co. was spudding at 100 feet.

In the North Fox area of Carter County, Simpson & Fell abandoned their No. 1, C SW SW SE, Section 20-1s-3w, as dry at 3,514 feet.

In Jefferson County, Hedrick and others had a rig up for their No. 1 Grayson, SE cor. NE SE, Section 18-6s-5w.

In Stephens County, the National Refining Co.'s No. 1 Hartley, C SE NE SW, Section 10-2s-6w, was dry and abandoned at 3,290 feet. S. R. McQueen had a well good for 125 bbls. the first 24 hours and 70 bbls. the second day in his No. 2, CWL NW NW SW, Section 34-1s-8w. Sand was found at 1,934-36 feet.

In Stroud Field

In the Stroud Field, the Amerada Petroleum Corp. shot its No. 7 Lewis, NE cor. NW SW, Section 7-14-7, with 60 quarts, resulting in an increase from 885 bbls. to 1,322 bbls. from oil pay at 4,093-4,178 feet. Wood & Farren's No. 3 Jack, SE cor. SW NW, same section, a north offset, was flowing 40 bbls. an hour from sand at 4,140-90 feet. The Rovana Petroleum Corp.'s No. 6 Zoller, NW cor. SW SW, Section 1-14-6, which made 248 bbls. natural from sand at 4,127-40 feet was good for 450 bbls. after a 60-quart shot. The same company plugged its No. 8 Zoller, north offset to No. 6 as a failure at 3,185 feet.

In Creek County, the Eastern Oil Co. abandoned its No. 2 Fish, SW cor. NW, Section 16-15-8, as dry at 3,370 feet.

The Laurel Oil & Gas Co.'s No. 6 Knoll, SW cor. NE SW, Section 22-16-8, which started out at 5,000 bbls. from sand at 3,109-11 feet recently, was still making 4,000 bbls. at latest report.

The Oklahoma Producing & Refining Corp.'s No. 2 Washington, NW cor. NE SW, Section 32-17-8, was a 55-bbl. natural well at 3,448-77 feet. The Aztec Oil Co.'s No. 1, SW cor. SE SE, Section 14-17-8, was treated with 80 quarts and produced 100 bbls. from sand at 2,253-83 feet.

The Texas Co.'s No. 1 Harry, NW cor. NE NW, Section 27-15-10, was good for 160 bbls. natural from sand at 2,709-35 feet, with first oil at 2,718 feet.

The Phillips Petroleum Co.'s No. 2 Brown, SW cor. NW NE, Section 4-14-10, made 160 bbls. natural from sand at 3,282-94 feet. Donnelly & Hall spudded and shut down their No. 1 Peters, NE cor. SE NW, Section 17-14-10.

KANSAS

The news from western Kansas goes from bad to worse steadily. Five additional location have been abandoned, one hole was plugged at 1,103 feet another at 3,608 feet, and a third hole was lost at 400 feet. The latter was the Producers & Refiners Corp.'s No. 1 Mermis, C SW NW NE, Section 9-14-15w, Russell County. The 15-inch could not be lowered past the tools so the rig was skidded 28 feet north. The Lewis Oil Co.'s No. 1 Haise, SE cor. NW, Section 31-12-14w, Russell County, was the well abandoned at 3,608 feet. And H. W. Neiswanger abandoned his No. 1, NW cor. SE NW, Section 2-19-12w, at 1,103 feet.

The abandoned locations included Martin Pemberton and others' No. 1 NW cor. SE NE, Section 18-17-7w, Ellsworth County; Hipple and others' No. 1 Morris, NW cor. SE, Section 9-22-6w, Reno County; Kirkland and others' No. 1, NE cor. Section 3-14-9w, Ellsworth County; the Amerada Petroleum Corp.'s No. 1 Brown, NW cor. NE SE, Section 35-10-10w, Lincoln County; Suppes and others' No. 1 Miller, SW cor. Section 25-12-12w, Russell County.

Pope & Powell and others were drilling their No. 1 Lewis, C NW SE, Section 22-11-6w, Lincoln County, at 450 feet.

In Rooks County, the Consolidated Oil Fields Corp. had a rig up for its No. 1, NE cor. SW, Section 26-8-16w. Keep Brothers also had a rig in place for their No. 1, NW cor. SW SE, Section 7-8-20w, same county.

Gulf Coast

The week has been an uneventful one in the Luling Field. The United North & South Oil Co.'s No. 33 Allen on the Guadalupe County side of the San Marcos River, is a 400-bbl. well. The Beauchamp Oil Co. has set casing in No. 3 Fields on the Caldwell County side and will drill into the lime. The Rio Bravo Oil Co., a subsidiary of the Southern Pacific Railroad has purchased the Maggie Moore lease of the Jarmon Oil Co. on which there is five producing wells.

The Gulf Production Co. quit No. 1 Caney Cattle Co. lands in the southern part of Matagorda County at 3,500 feet. The Marland Oil & Refining Co.'s No. 1 Hawkins, near Bay City, is drilling around 2,000 feet.

The Humble Oil & Refining Co. has spudded in No. 1 Kincaid Ranch in the southern part of Uvalde County.

Lancaster, Pa., parties are starting a drilling campaign north and east of Lufkin County, where some small wells have been developed by H. C. Jennings around 600 feet. A light gasoline driven rotary will be used.

HOPE TAXLESS COUNTY FROM OIL IN COWLEY

WICHITA, Kans., Sept. 6.—Visions of a taxless county were being entertained by Cowley County citizens following action taken by Cowley County Commissioners in leasing the county farm for oil prospecting.

Situated in the southwest quarter of Section 34-32-4, 2½ miles southwest of the new deep pool opened recently by the J. A. Hull Co.'s No. 7 Wallace, which started off at 300 bbls. in a 3,000-foot sand, the county farm is considered in the trend for production. It is 1 mile west of the Watchorn Oil Co.'s Keithley well which had a splendid showing in the 3,100-foot sand.

Whether or not the county farm is to have oil wells, will not remain in doubt very long as Dye and others, of Leavenworth, who obtained the lease, have contracted to drill a test to the Wilcox sand, or below, in case production is not found sooner, work to get under way within 60 days. Dye & Co. have a block of 600 acres with the county farm as the nucleus.

NO DOME RECEIVER NOW

CHEYENNE, Wyo., Sept. 6.—Appointment of a receiver in the Teapot Dome naval oil reserve receivership, to succeed Rear Admiral Joseph Strauss, resigned, probably will not be made until October, if at all, Judge T. Blake Kennedy of the United States District Court here says.

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NEW LUBRICATING OIL METHOD INSTALLED AT TEXAS REFINERY

HOUSTON, Tex., Sept. 8.—Something new in the way of a new lubricating oil is now being turned out by the Houston plant of the Deepwater Oil Refineries. It is known as the Schulze vacuum process, developed over an extended period of experimenting by its inventors, John E. Schulze, of Chicago, and J. P. Gillen, general superintendent of the Deepwater refinery. The installation by the Deepwater refinery is the first of its kind. Small units have been installed following completion of laboratory tests, and the new lube is now being turned out in commercial quantities.

The Schulze method is distillation of oil under reduced pressure, obtained through vacuum pumps throughout the cycle of refining from stills to receiving tanks. The stills for the new operation were made and installed, under special specifications, by the Graver Corporation.

The feature of the new method is that runs of lubricants are obtained at temperatures lower than runs of equal viscosities of other methods. The Schuzle method successfully operates without giving over with each cut the cracked fractions necessitating numerous purifications.

The patent describes the process as follows:

Details of Process

"In general, the process of the invention is characterized by distillation under reduced pressure, and particularly under an absolute pressure not exceeding about 25 millimetres of mercury as an upper limit; while distillation at very much lower pressure, say not to exceed five millimetres of mercury and most desireably still lower, offers advantages that are particularly noteworthy and remarkable. * * * The novel process as practiced to greatest advantage also includes as an important factor control of the distillation and determination of the successive lubricating cuts or fractions by observation of one or more physical characteristics of real significance, such as viscosity, flash point and fire point, rather than observation of gravity as has heretofore been the practice."

The Schulze process turns out finished lubricants without the acid treatment and washing. It is claimed that the Schulze process turns out oils superior in color, flash and fire.

Heat is optional, the Schulze process can be operated either by steam injected into the still or by the fire still heated with gas or fuel oil.

Equipment Described

Describing the equipment, the patent papers relate:

"In carrying out the procces of the invention it is important that the still and associated apparatus employed therewith be of such character that the whole system can be kept under the desired low pressure clear through to and including the receiving tanks."

The still walls must be braced to withstand outside pressure when vacuum is applied. Cracking through refluxing is prevented by installation of a baffle below the intake vapor offtake pipe, the offtake leading to the condenser coil, the latter discharging into a closed baffle box or separator in which are a series of baffles. The separator is equipped with a liquid discharge pipe at bottom and vapor offtake at top.

The patent sets forth the quality of the finished lubes as follows:

"An object of the present invention is to prevent, or at least greatly reduce, the mechanical carrying over of the oil with the vapor as above described, and, by avoiding cracking, to obviate the necessity of acid treatment, neutralization, washing and filtration.

"Another object of the invention is to produce by straight overhead distillation lubricating oils of viscosities attainable in lubricating oils heretofore only by blending cylinder stock still bottoms with lighter fractions of low viscosities and low flash and fire test.

"Still another object of the invention is to produce what is termed narrow cut oils, particularly, lubricating oils, which are distinguishable, respectively, from comparable oils heretofore known by their relatively small range of viscosity, boiling points, and flash and fire tests, as determined by examination of initial and final fractions obtained by distilling samples under conditions precluding cracking or decomposition."

The following table is furnished by the inventor from laboratory tests: Light, medium and heavy oils of both paraffin and naphthene base were compared with similar grades run by Schulze:

"The new oils are all characterized by narrow viscosity ranges that are far narrower than those found in prior oils. Oils of the novel type herein described, having viscosities up to 150 seconds, Saybolt universal at 100 degrees F. show viscosity ranges as low as 50 seconds, while a range of 100 seconds is common and a range of 250 seconds is approximately the maximum for oils of this particular class.

"Another characteristic distinguishing the present novel straight overhead non-acid-treated lubricating distillates from lubricants heretofore available commercially, practically all of which latter having viscosities up to 750 seconds (at 100 degrees F.) are acid treated, is the fact that the oils of the present invention show little or no tendency to form emulsions with water when subjected to severe emulsifying tests, but on the other hand separate from water quickly and clearly."

NEW YORK STATE OPERATIONS

BOLIVAR, N. Y., Sept. 6.—Putnam & Son have finished a fair producer on the Cartwright farm at Richburg.

Funk & Matson have completed No. 4 on the Frair lot in Richburg. The well started off at 20 bbls.

Harry Goodrich is drilling a gas well on the Cottrell lot, town of Wirt. William Jennings is the contractor.

Contractor Percy Jordan is drilling a well for the Forest Oil Co. on the Reed farm, where he will soon have three strings of drilling tools in operation.

Jesse Hardman is drilling a well on his fee property in the village of Richburg.

A. Austin & Son are about to start their No. 9 Fred Dean.

Contractor A. C. Shaner has completed a fair well for Finnesy & Kinley on the Turner farm in Bolivar.

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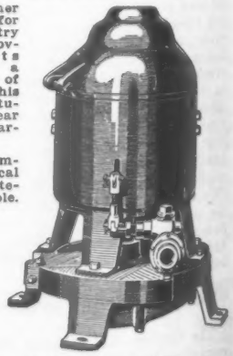

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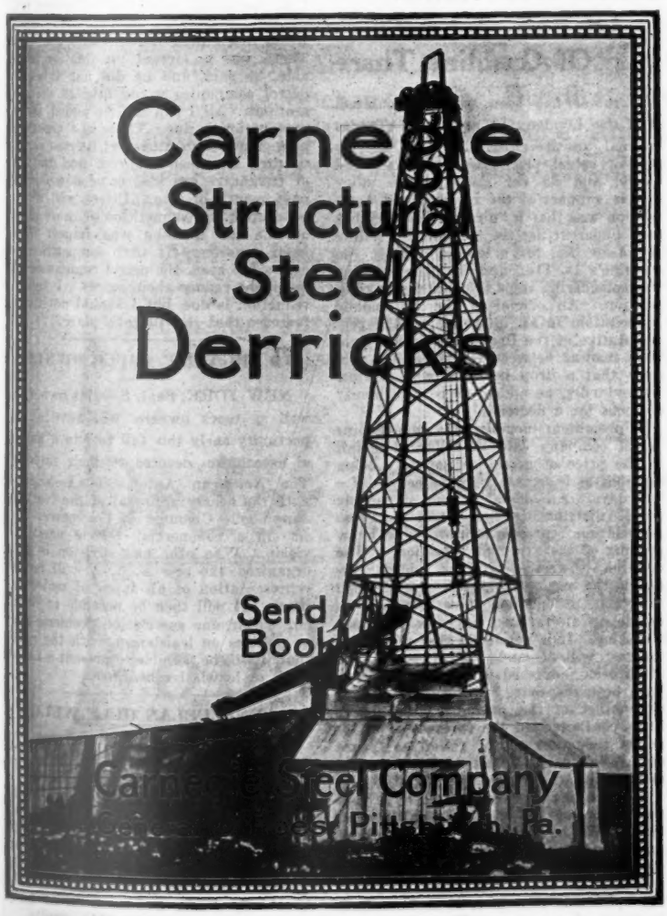

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Bureau of Mines Refinery Statistics for Month of July, 1924

Compiled by G. R. Hopkins
Petroleum Economist

During the month of July the Bureau of Mines received reports from 254 operating refineries, with an aggregate daily crude oil capacity of 2,225,472 barrels, running to stills a daily average of 1,705,711 barrels of both foreign and domestic crude oil, or 77 per cent of their daily operating capacity, a decrease of 2 per cent from the refinery operations of the previous month and a decrease of 1 per cent from the refinery operations of July, 1923.

Gasoline.

The production of gasoline during the month of July was 741,974,813 gallons, a daily average of 23,934,671 gallons. This represents a decrease in daily average production from the previous month of 634,686 gallons or 2.6 per cent, but an increase of 16.5 per cent over the daily average of July, 1923. The domestic demand for July, 1924 was a new record mark of 794,030,852 gallons, a daily average of 25,613,898 gallons, and an increase over the previous month of 11.9 per cent. Stocks on hand at the refineries at the end of the month were 1,466,558,939 gallons, a decrease from the previous month of 132,299,280 gallons. Imports and exports of gasoline both fell off during the month. At the July rate of consumption stocks on hand on July 31 represented 57 days' supply. This compares with 54 days' supply on July 31 a year ago. Summarizing, we see that whereas gasoline production showed very little change over the previous month, gasoline consumption increased greatly, being reflected in decreased stocks.

Kerosene

Kerosene production during July was 194,201,141 gallons, a daily average of 6,264,552 gallons. This represents an increase of 2.6 per cent over the daily average of the previous month. Domestic demand fell off and stocks were increased 7,834,382 gallons during the month.

Gas and Fuel Oils

The July production of gas and fuel oils was 1,102,785,843 gallons, a daily average of 35,573,737 gallons. This represents a decrease of 3.6 per cent from the daily average of the previous month. Stocks on hand at the end of the month were 1,603,643,206 gallons. This represents a decrease of 14,920,323 gallons from the high water mark of the previous month.

Lubricants

The production of lubricants during July was 87,489,694 gallons, the lowest monthly production since September 1923. This is a daily average of 2,822,249 gallons, a decrease of 12.7 per cent from the daily average of the previous month and a decrease of 6.9 per cent from that of a year ago. Stocks on hand showed very little change during the month.

Comparative Analysis for July, 1924

Gasoline—	Production	*Imports	*Exports	Stocks end of period	Domestic demand
July, 1923	636 912,059	22,634,719	83,721,099	1,165,389,340	674,019,467
January, 1924	695,322,500	19,309 197	88,823,007	1,200,287,779	500,420,561
February	677,740,318	5,189,928	103,546,045	1,383,383,889	396,288,091
March	743,248,292	13,223 836	85,090,057	1,587,584,872	467,181,088
April	754,773,232	7,627,299	176,941,248	1,625,869,129	607,176,026
May	†779,194.019	14,265,697	96 879,769	1,649,953,755	†672,495,321
June	737,080,701	13,828,926	115,330,959	1,598,858,219	686,674,204
July	741,974,813	7,553 863	87,797,104	1,466,558,939	794,030,852
Kerosene—					
July, 1923	188,226,251	11,060	59,821,009	269,459,847	123,257,457
January, 1924	217,767,931	20,536	64,762 389	300,245,249	135,956,496
February	196,826,060	24,070	73,468,998	306,727,001	116,979,472
March	200,038,627	20,835	53,036 540	330,009,861	123,740,062
April	203,185,921	56,787	88,863,901	288,964,972	155,423,696
May	199,992,393	47,042	79,421,026	304 005,726	105,577,655
June	183,141,014	15,675	82,438,794	293,322,967	111,400,654
July	194,201,141	65,232	80,884 470	301,157,349	105,547,521
Gas and Fuel Oils—					
July, 1923	1,053,242,507	46,259,234	120,942,731	1,400,813,790	901,770,327
January, 1924	1,062,892,393	26,471,249	109,908,000	1,471,544,338	1,032,946,015
February	1,025,421,651	59,830,201	112,994,698	1,491,173,016	952,628,476
March	1,114,411,725	48,619,520	134 973,335	1,487,463,907	1,031,767,019
April	1,116,763,663	41,826,326	120,344,289	1,536,337,206	989,372,401
May	1,155 935,780	63,630,173	133,852,785	1,555,662,866	1,066,387,508
June	1,106,711,936	45,807,861	143,110,953	1,618,563,529	946,508,181
July	1,102,785,843	53,166,789	154 275,024	1,603,643,206	1,016,597,931
Lubricants—					
July, 1923	93,960,874	486,922	23,603,187	224,951,955	71,029,884
January, 1924	94,534,650	2 897	25,175,405	243,224,109	68,923,103
February	93,824,414	32,566	33,526,615	253,845,381	49,709,093
March	101,126,865	29 436	40,664,791	249,789,026	64,547,865
April	96,966,565	18,617	34,261,964	251,047,444	61,464,800
May	104,458,527	222,419	46 783,286	243,732,406	65,193 708
June	96,994,523	26,965	33,500,017	248,585,972	58,667,905
July	87,489,694	54,289	25,156,414	245,625,869	65 347,672

Note: *From Bureau of Foreign and Domestic Commerce. Exports include shipments to Alaska, Hawaii, and Porto Rico. †Revised figures.

Runs to Stills and Output of Refineries in the United States, July 1924

	Oils Run to Stills (Barrels)					
	Crude oils		Unfinished oils		Natural Gas gasoline	Total oils run to stills
	Domestic	Foreign	Domestic	Foreign		
East coast	8,488,227	2,741,084	616,858	129,411	283,007	12,258,587
Pennsylvania	1,826 015	.....	66,619	.....	84,711	1,977,345
Indiana and Illinois	4,527,557	.....	168,230	.....	218,322	4,914,109
Oklahoma & Kans.	6,131,448	.....	307,227	.....	221,098	6,659,773
Texas	9,194,920	1,150,667	459,706	4 476	227,596	11,047,364
Louisiana and Ark.	3,541,439	667,672	99,235	65,056	37,637	4,411,039
Colo. and Wyoming	2,361,850	.....	933,408	.....	71,834	3,367 092
California	12,246,181	.....	628,398	.....	166,069	13,040,648
U. S. total	48,317,637	4,559,423	3,279,691	198,943	1 320,263	57,675,975
Daily Av., 7/24	1,558,633	147,078	105,796	6,418	42,589	1,860,515
Daily Av., 7/23	1 517,424	112,558	.....	24,494	13,528	1,695,572
Texas Gulf Coast	6,771,395	1,149,550	395,726	4,476	225,440	8,546,587
Louisiana Gulf Coast	2,364,185	667,672	90,183	65,056	.....	3,187,096

	Gallons				Pounds
Output and Losses—	Gasoline	Kerosene	Gas and fuel oils	Lubricants	Wax
East coast	140,108,229	43,964,639	242,444,007	24,549 266	12,791,570
Pennsylvania	29,721,223	12,011,910	16,981,613	13,717,681	5,635,935
Indiana and Illinois	95,726 701	17,512,088	59,494,256	8,341,227	4,893,210
Oklahoma and Kansas	121,460,059	26,466,671	102,210,860	7,349,862	3,833,065
Texas	154,168,918	44,707,932	194,349,492	19,954 334	4,479,207
Louisiana and Arkansas	42,350,567	22,980,932	77,808,992	2,857,084	2,798,484
Colorado and Wyoming	56,159 396	6,337,984	44,061,647	1,622,814	3,766,664
California	102,279,726	20,218,984	365,434,975	9,087,426	.....
United States total	741,974,813	194,201,141	1,102,785,842	87,489,694	38 198,135
Daily average, 7/24	23,934,671	6,264,552	35,573,737	2,822.249	1 232,198
Daily average, 7/23	26,645 550	6,071,315	33,975,565	2,030,996	1,165,764
Texas Gulf Coast	117,639,329	37,451,359	148,081,253	18,487,296	4,199 511
Louisiana Gulf Coast	32,954,252	19,639,535	43,543,866	2,529,526	2,798,484

	Coke, tons	Asphalt, tons	Other finished products, gallons	Unfinished products, gallons	Losses barrels
East coast	13,179	120,665	5,455,472	3,335,979	461,874
Pennsylvania	1,449	518	1,548,368	2,321,947	127,924
Indiana and Illinois	17,325	9,883	6,132,136	5,764,197	138,781
Oklahoma and Kansas	4,942	305	1,888,522	5,558,602	309,474
Texas	12,121	25 908	873,723	21,901,628	452,636
Louisiana and Arkansas	8,068	35,422	4,524,723	30,003,901	100,675
Colorado and Wyoming	6,466	5,352	393,994	26,204,675	74,472
California	.....	47,428	5,602,269	26,542,874	176,313
United States total	63 241	246,478	29,319,207	111,643,803	1,842,149
Daily average, 7/24	2,040	7,919	945,781	3,601,412	59,424
Daily average, 7/23	1,913	7,153	996,975	.....	59 191
Texas Gulf Coast	10,933	25,908	.....	12,856,240	376,000
Louisiana Gulf Coast	7,328	35,422	4,066,041	18,020,767	64,424

Stocks at Refineries in the United States, July 31, 1924

	Oil to be run to stills (barrels)				
	Crude oils		Unfinished oils		Total oils to be run to stills
	Domestic	Foreign	Domestic	Foreign	
East coast	8 355,024	2,140,820	8,161,519	88,843	18,746,206
Pennsylvania	1,326,002	.....	2,644,503	.....	3,970,505
Indiana and Illinois	1,481,132	.....	2,043,029	.....	3,524,161
Oklahoma and Kansas	4,945,288	.....	1,763,382	.....	6,708,670
Texas	5 970,821	793,447	5,820,903	.....	12,585,171
Louisiana and Arkansas	5,720,590	1,310,690	1,942,326	153,866	9,127,472
Colorado and Wyoming	1,309,818	.....	1,927,822	.....	3,237,640
California	6,616,299	.....	11,757 980	.....	18,374,279
United States total	35,724,974	4,244,957	36,061,464	242,709	76,274,104
United States total 7/31/23	27,766,282	5,814,230	29,932,861	*104 781	63,618,154
Texas Gulf Coast	4,646,827	793,447	5,407,695	.....	10,847,969
Louisiana Gulf Coast	5,459,411	1,310,690	1,803 524	153,866	8,727,491

Products—	Gasoline gallons	Kerosene gallons	Gas and fuel oils gallons	Lubricants gallons	Wax, pounds
East coast	316,375,960	83,331,110	210,870,087	85,032,532	54,906,102
Pennsylvania	25,819,871	13 230,714	28,356,120	34,145,278	18,341,594
Indiana and Illinois	189,319,246	32,135,459	57,643,960	25,464,842	12,019,019
Oklahoma and Kansas	174,961,754	21 186,906	117,714,844	16,001,964	2,633,421
Texas	167,453,625	62,525,783	280,221,466	55,219,683	8,699,203
Louisiana and Arkansas	138,344,918	50,125,357	71,541,442	8,771,397	6 460,050
Colorado and Wyoming	177,324,494	7,738,877	33,134,935	4,413,846	4,736,470
California	266,959,071	30,883,143	804,160,352	16,575,687	4,490
United States total	1,466,558,939	301,157,349	1,603,643,206	245,625,869	107 799,793
U. S. total, 7/31/23	1,165,389,340	269,459,847	1,400 813,790	224,951,955	174,149,738
Texas Gulf Coast	150,979,876	45,552 352	219,996,956	54,128,379	8,564,731
Louisiana Gulf Coast	133,873,037	49,073,776	67,151,470	8,173,161	6,460,050

	Coke tons	Asphalt tons	Other finished products, gallons
East coast	15,295	60,282	7,181,092
Pennsylvania	151	1,700	2,774 107
Indiana and Illinois	10,055	5,925	21,172,971
Oklahoma and Kansas	10,845	74	1,829,595
Texas	10,853	16,792	914,662
Louisiana and Arkansas	8,591	13,652	19,272,519
Colorado and Wyoming	3,416	4 896	451,330
California	.....	20,029	458,448
United States total	59,206	123,350	53,055,724
United States total, 7/31/23	22,149	134,564	32,254,251
Texas Gulf Coast	10,370	16,792	.....
Louisiana Gulf Coast	7,831	13,652	2,936 115

*Revised.

British Hear Rumor Of Fall in Prices Of Gasoline There

A rumor has been widely circulated, says the London Oil and Color Trades Journal, to the effect that very shortly British petrol prices are to be reduced by 6d and 8d per gallon. The story told in support of the rumor about a reduction was that a "pirate" company has been undercutting the combine by selling petrol at 1s. 4d. a gallon against the combine's 1s. 11d., and that the combine was considering steps to counter this competition. An official of the Automobile Association, in an interview with a representative of the Press Association, said that, reading between the lines, it would seem that a drop in price was coming. Undoubtedly, he added, there was plenty of room for a decrease.

A prominent member of a noncombine petrol company said he regarded a fall in the price of petrol as not only being due, but as a certainty in the course of a few days. An official of one of the big petrol distributing firms told a Press Association representation that he knew nothing of the expected reduction. "The decision is arrived at," he added, "between the various companies, and until such time as meetings have been held to decide on alterations, prices will remain the same. It is not likely that an official forecast will be made. Predictions have often been published, but frequently they have been disproved." One of the heads of another of the principal distributing firms characterized the forecast of an 8-penny reduction on the gallon as "scare stuff," and said he had no hesitation in discrediting the report.

Similar views were expressed by a leading official of the Motor Trade Association. "We have no knowledge at all of any drop," he said, "though in the past we have not been advised until the information is practically public property. My opinion is that there is no immediate prospect of any drop. There is a good deal of surplus petrol at the moment, but I do not think it will affect prices yet." Another prominent figure in the motor world discredited the rumored reduction. There was no actual information available, he said, and he did not think the petrol companies would divulge their intentions. All I can say, he added, is that a reduction is due. There is a great surplus of petrol in America; its cost in that country has been reduced, and the cost of freightage has also come down in the past month of two. Prices will all depend upon the competition of those people outside the combine who import direct from America. If that competition becomes too keen, the petrol companies will no doubt reduce their prices. I think a reduction is due, but I should not like to forecast that it will take place."

TO ORGANIZE TRUCK OWNERS

NEW YORK, Sept. 8.—Bus owners, as well as truck owners, will have an opportunity early this fall to join a national association devoted to their interests. The American Automobile Association, with the hearty approval of the National Automobile Chamber of Commerce, is to set up a commercial vehicle users' division. Whe nthe new division is fully organized, the new A. A. A. will include representation of all types of motor car users. It will then be possible to thresh out within one association problems such as policies on legislation, with the result that it will be possible to present a united front at legislative hearings.

VENEZUELAN GULF WELL

Venezuela Gulf Oil Corp., subsidiary of Gulf Oil, has completed a well on the Superior tract, on the east side of Lake Maracaibo in the La Rosa district, Venezuela, flowed at the rate of 1,200 bbls. a day through a ½-inch choker during a 30-minute test. The well is on acreage leased early this year from the Creole Syndicate and came in at 1,085 feet with crude running 21½ gravity.

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The Semi-Annual Number which reviewed the operations for the first six months of 1924 and presented a timely and clear idea of exactly what conditions were and the prospects.

And, of course, there will be an Exposition Number fittingly heralding the second annual International Petroleum Exposition in Tulsa, October 2-11, 1924. The Exposition Number of last year will be remembered as one of the features of the big oil show. This year The Oil and Gas Journal will match the growth of the exposition with even finer souvenir editions.

The Oil and Gas Journal is, moreover, the only trade publication publishing a rotogravure section devoted to pictures of the industry.

Among other exclusive and special services The Oil and Gas Journal has published complete lists of the Natural Gasoline manufacturers in the United States and the most up-to-date list of the refineries in the country, both of which, reprinted in pamphlet form, have been in great demand.

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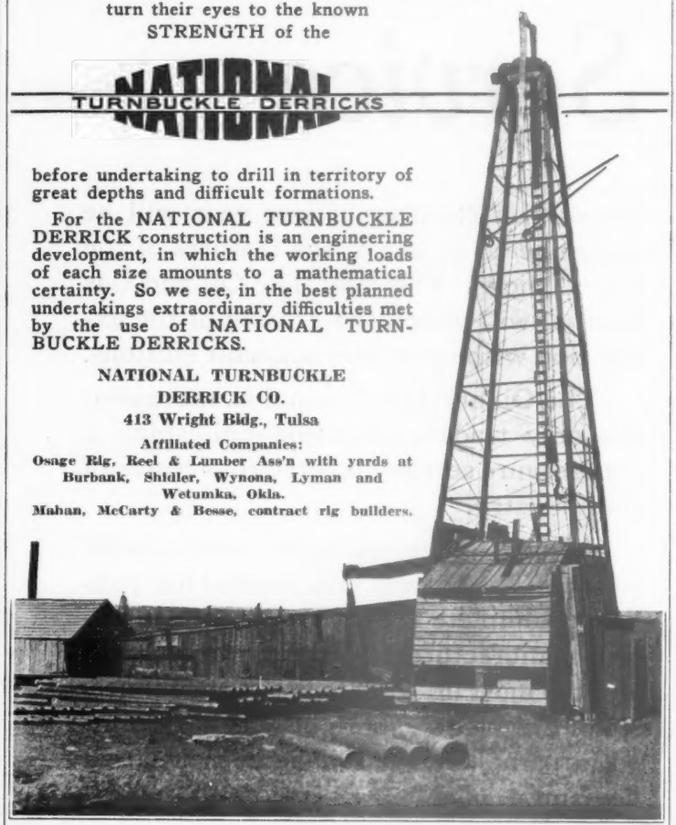

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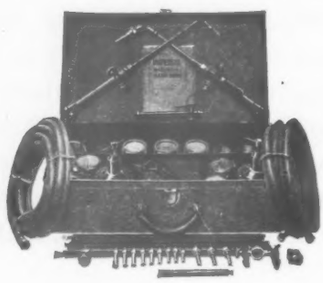

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(Continued from Page 28)

three plants of the Pure Oil Co., located at Muskogee, Ardmore and Cushing, Okla. Others of the group include the West Tulsa and Blackwell plants of the Producers & Refiners Corp., Muskogee, Okla., and the Coffeyville and Argentine, Kans., plants of the Sinclair Refining Co.; the Tulsa Okla., Dallas, Tex., and Ardis, La., plants of The Texas Co.; the Arkansas City, Kans., plant of Roxana Petroleum Corp.; the Fort Worth, Tex., plant of the Gulf Refining Co.; the Hearn and Burkburnett, Tex., plants of the Humble Oil & Refining Co.; the Fort Worth, Dallas and Corsicana, Tex., plants of the Magnolia Petroleum Co.

Runs of Larger Companies

All of this group belong to the major interests of the oil industry. The Magnolia, Humble and the Producers & Refiners belong to the Standard group and the remainder are connected with large interests which refine the bulk of their refinery output outside the Mid-Continent. It is interesting to know that these companies alone were running 89,000 bbls. of crude oil to stills on August 1. This is 26 per cent of the total crude to stills of the Mid-Continent section.

Through its producing connections, the Empire group have nearly enough production for their refineries. The principal producing companies are the Midland Oil Co. and the Empire Fuel & Gas Co. However, this production is not all available to the refineries and the refining companies are buyers of crude which they bring to their plants in their own pipe lines. The total crude production of the Pure Oil Co., including the Oklahoma Producing & Refining Co. now owned by the Pure is approximately 11,000 bbls. daily and this slightly exceeds the present refinery runs of the company. According to the Oklahoma production report for the second quarter of 1924, the Producers & Refiners Corp. has about 4,000 bbls. daily production which is less than the crude runs of its two Oklahoma plants. The extra crude is obtained from the Prairie Oil & Gas Co., which now has controlling interest in the Producers & Refiners Corp. Largely the same situation applies to the Sinclair, Texas, Roxana, Gulf, Humble and Magnolia companies. All these companies have more production in the Mid-Continent than is refined by their Mid-Continent plants except Sinclair. Further, all have extensive pipe line connections to bring crude to their plants if their own production is not available. All the companies named have their own jobbing facilities directly or through allied interests. With the exception of the Standard interests, these jobbing facilities do not at all times take care of the plant output and for that reason they are also factors in the tank car market. The Standard of Kansas, Neodesha, Kans., buys its crude and markets through the Standard Oil Co. of Indiana.

Position of Other Concerns

The Barnsdall Refining Co. has sufficient crude for its Barnsdall, Okla., refinery and also has 47 bulk and 35 service stations in the Middle West. The Marland Refining Co., Ponca City, Okla., has its own crude production and markets a large part of its gasoline through its own stations located principally in Oklahoma. The Waite Phillips Co. at the present time has about 3,000 bbls. daily production and buys the remainder of the crude needed for its Okmulgee, Okla. plant. It markets approximately 75 per cent of its own gasoline output through its own stations located in Oklahoma and adjoining States.

The Sapulpa Refining Co., now owned by the Mutual Oil Co., has its own crude production and markets its output largely through the Mutual stations located in the Middle West. The Shaffer Oil & Refining Co. produces approximately half of the 6,000-bbl. daily crude runs of its Cushing refinery and markets its output largely through its own stations located in the Middle West. The Skelly Oil Co. is one of the large producers of the Mid-

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Continent although its production is principally in Oklahoma. Its total production exceeds the refinery runs of its El Dorado, Kans., plant but all the crude is not available for the refinery. The company markets a substantial part of its output through its own stations extending from Kansas to Minnesota.

The Sun Co. has its own production through the Twin States Oil Co. It has several stations in Tulsa and markets the remainder of its output through its Eastern interests, the Sun Oil Co., one of the large refining and marketing organizations of that section. The Tidal Oil Co., operating a plant at Drumright, Okla., and the Tidal Western Oil Corp. operating a plant at Burkburnett, are subsidiary organizations of the Tide Water Oil Co., and part of their output is marketed through the parent organization. The same interests have large production in Oklahoma and Texas not all of which is available to their Mid-Continent plants. The company buys some crude in the Burkburnett area.

Producers and Refiners

The Transcontinental Refining Co. buys the bulk of the crude supply for its Boynton and Bristow, Okla., and Fort Worth, Tex., plants. The same interests, however, have approximately 2,000 bbls. daily production in Oklahoma. These interests are especially well situated in regard to a crude supply in the new Reagan County Field of Texas. The company markets a large part of its output through its own jobbing connections in Pennsylvania and other points. The Derby Oil & Refining Co., Wichita, Kans., is both a producer and buyer of crude, its production being around 1,500 bbls. daily. The company has extensive wholesale and retail facilities in Kansas, Colorado and other States.

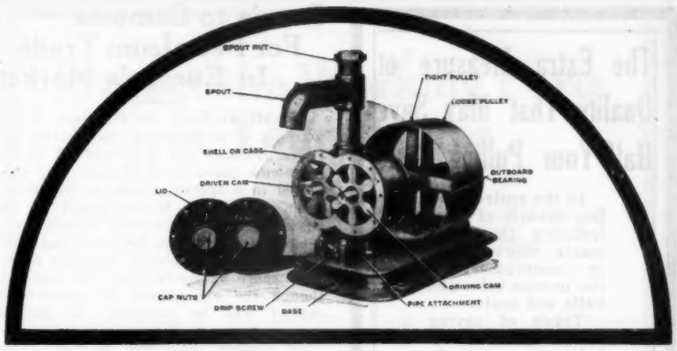
In North Texas, the Texhoma Oil & Refining Co. has about 7,000 bbls. daily crude production which is more production than is needed for its refinery. It has bulk and service stations in Texas but markets the bulk of its output at tank car prices. The American Refining Co. at the same point has a few hundred bbls. daily production together with some production owned by individuals who are officials of the company. It also jobs part of its output in Texas and has recently established bulk stations at points outside the State. The National Refining Co. with a refinery at Coffeyville, Kans., and the White Eagle Oil & Refining Co., with plants at Augusta, Kans., and Fort Worth, Tex., sell their products through their own stations. They also have some scattered production in the Mid-Continent area but buy the bulk of their crude supplies. Their stations are located in several States.

The Louisiana Oil Corp., with two plants in north Louisiana has part of its crude supply and also has a few bulk and service stations. The same situation applies to the American Oil Corp. of Pioneer and Illinois Oil Co., Cushing, Okla. The latter company sells through its own stations in Illinois.

Refiners With Production

There are several refiners with crude production but no jobbing facilities. The Allied Refining Co., of Okmulgee, has part of its crude supply owned by E. L. Robinson, president of the company. The Bolene Refining Co. is a buyer of crude, although the bulk of its supplies is obtained from the Healdton Oil & Gas Co., a closely allied concern. The Cameron Refining Co., of Ardmore, according to the Oklahoma production report for the second quarter had 800 bbls. daily prodution, approximately one-third of its refinery crude runs. Cosden & Co., at the present time has a daily production of around 10,000 bbls. The company has large pipe line facilities to obtain the remainder of its crude supply. The Cushing Refining & Gasoline Co., with plants at Blackwell and Cushing, Okla., has production through the Blackwell Oil & Gas Co., one of the largest independent producing companies in Oklahoma. The present production of the company is several times greater than the refinery runs

(Continued on Page 144)



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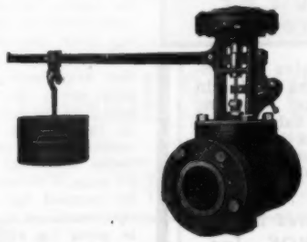

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41

The Extra Measure of Quality That May Save Half Your Pulling Costs

In the entire producing branch of the oil industry there is no waste more frequent or unnecessary than the unwise selection of balls and seats.

Think of saving a few *cents* on inferior balls and seats only to lose scores of *dollars* in frequent pulling and replacements. Think of even considering anything but the highest grade when so much depends on the ball and seat and such a slight difference in cost separates the best from the worst.

NO-CO-RO balls and seats give unusual service because unusual care is taken in their design and manufacture. Seventeen years' experience is back of them.

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Try NO-CO-ROS and note the difference. Twelve to eighteen months service in wells once requiring change of valves every two weeks is a common occurrence. At your supply house or direct.

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NORRIS BROS., Inc.
Manufacturers of Oil Well Pumping Equipment
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Russia to Compete For Petroleum Trade In Europe's Market

WASHINGTON, D. C., Sept. 8.—A warning of approaching competition between Russian and American oil in the petroleum markets of Europe was contained in a special report on the petroleum industry of Russia issued by the Department of Commerce. Russia, as a competitor in foreign petroleum markets, the department declared, promises to become more aggressive year by year, although the expenditure of considerable capital will be necessary to provide transportation facilities.

At present, according to the report, the Russian petroleum industry is becoming more than a potential factor in the supply of petroleum products to the world's markets. In the first six months of the current year the Soviet Government shipped abroad over 758,000 tons of petroleum products, practically all of which went to European countries.

This figure was said to be over 80 per cent of the total exports for 1913, the last pre-war year. Thus, the report stated, Russian petroleum products are again beginning to have an effect on the European markets, which effect seems destined to grow yearly.

Moreover, the department pointed out, despite political boundaries, communications for supplying the world's markets take the most convenient routes. Hence, the development of the petroleum industry in Russia will have a wide influence extending beyond the frontiers of that country.

At the present time, according to the report, the preponderance of supply over demand in world markets tends toward reversal, and the petroleum companies are contending for the oil fields as reserves for future demands. With the construction of proper means of transportation from the Russian oil fields to the ports, the report predicts that the export business will exceed its former maximum. Thus far, the report stated, the Soviet Government has granted only three concessions to foreign concerns to operate oil fields within its boundaries, and only two of these are actually being worked. Those in operation are the one granted the Soviet Miniere Italo-Belge di Georgia on the Shirak Steppes and the one to an American concern in the Apsheron Peninsula. The third concession is to an American company for operations in the northern part of Sakhalin Island, but since that area is held by the Japanese the concession has been inoperative.

CANADIAN DESCRIBES SUNBURST OPERATIONS

(Continued from Page 23)

plenty of water is available in the field; in fact, the camps are quite modern and comfortable. The main highway, the Sunshine trail, runs nearly through the center of the field, and thousands of tourists and other visitors stop in the fields for a glimpse of modern methods of extracting oil from old mother earth. One of the oddest features of the field is to note the steel pump jacks working away alone maybe a mile away from the station out on the prairie, pumping away with no one near them and taking their time or pumping rather fast according to the capacity of the well they are working on, each connected by inch steel rods which work backword and forward upon notched pegs driven in the ground from the main power houses. Each camp has its own power house and some of them two or more, as only a certain number of wells can be pumped by one engine. Although they work on a balance, while one jack is going up another on the other side is going down, which equalizes the draft and makes the pumping work more uniformly. From a high point not far from the Ohio camp, which is the most northern group of wells, to the south and southeast, and some wells to the southwest, as far as the naked eye can see, derricks point skyward, showing that the size of the Sunburst-Kevin Field is really immense. Yet there is still room for thousands and thousands more wells in this great stretch of country.

"Going back to Sunburst we found the O'Neil Refinery nearing completion. They have 40,000 bbls. of crude stored in their tank farm above the refinery. Gravity pressure will run the oil down to the plant. The refinery will be in operation shortly, and a spur track will be built for their use as well. Tip O'Neil, the owner, has been granted a special petroleum products rate good to all points in Montana by the Great Northern Railway."

NATURAL GASOLINES HIGHER IN OKLAHOMA

(Continued from Page 22)

numerous offers for spot material and some sales were made. This distillate demand is undoubtedly aiding the kerosene market. Refinery operations in Oklahome differ widely in regard to output of refined products due to the varying type of plants and crude on which they operate, but in practically all instances it is not possible to increase distillate yield without reducing kerosene output and vice versa.

Fuel and Gas Oils

Some of the "edge" is off the fuel oil situation but prices are still generally firm. A few sales under 90 cents were reported for the lower gravity grades but this material was quickly absorbed. Some plants are holding for $1 price for 24-26, although there is more material available at 90 cents than there was a week ago. Due to the expectation of a crude reduction many of the trade do not look for further advances in fuel oils at this time. Some, in fact, are looking for slightly lower prices provided the lower crude prices materialize. There was no change during the week in the gas oil situation.

Natural Gasolines and Blends

Natural gasolines continued to advance during the week. A survey made by one buyer brought the report from him that practically every large manufacturer in the Mid-Continent Field was sold up until the latter part of September. Some market observers are inclined to believe there is more material in the field than is apparent at the present time. Many manufacturers agree that prices are now out of line with the straight run market. If the straight run market continues to soften, it is not believed there will be additional advances in the natural gasolines with several market observers predicting a slump within the next two weeks.

Blends are still slow. As previously explained in these columns, blenders cannot pay present prices for their materials and sell in competition with the straight run market. This is also a factor which supports the bearish predictions that are being made in regard to the natural gasoline market. Refiners take the substantial part of the natural gasoline output but the blenders' purchases are an important market factor.

Lubricating Oils

A couple of Oklahoma plants reported an improved demand for neutrals and cylinder stocks during the past week. Others said there were no changes. Bright stocks are strong. There is still practically no wax available in this field for immediate shipment. Offers for future shipments are no higher than they were a week ago.

PETROLEUM ASSN. MEETING.

The National Petroleum Association will hold a three days' session at the Hotel Traymore, Atlantic City, N. J., beginning September 17.

GREENE COUNTY, PA., GASSER

PITTSBURGH, Pa., Sept. 6.—A gas well making 1,000,000 feet an hour has been struck near Video, Green County, Pennsylvania. Efforts are being made to cap it.

Wanted

Carbon black plant or gas leases Louisiana preferred, in district suitable for erection of plant.

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The Oil and Gas Journal, Tulsa, Oklahoma

The Neco Pump

(Working Barrel)

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United N. & S. Co. Output in Luling 27,306 Bbls. a Day

LULING, Tex., Sept. 6.—The production of the Luling Field for the past week averaged 35,000 bbls. a day. The field has settled down to a quiet routine. A roundup of production by companies made this week as of the week ending August 31 showed the United North & South Oil Co. with a production of 13,623 bbls. a day from 113 wells in the older Caldwell County Field and 13 683 bbls. a day from 90 wells in the Gaudalupe County end of the field. The production for the whole field during the period was 38,051 bbls., of which 32,891 bbls. was run by the pipe lines, the remainder going to lease storage. The Grayburg Refining Co. ran 3,055 bbls. a day; the Magnolia Petroleum Co., 10.269 bbls.; Rio Bravo Oil Co., 850 bbls.; Mutual Pipe Line Co. 4 691 bbls.; Atlantic Oil Producing Co. 12 676 bbls.; the National Pipe Line Co. 840 bbls. and The Texas Co. 600 bbls.

Following are the details of the production by company and lease:

Average Daily Production, Luling Field, August 31, 1924
Caldwell County

Company and farm—	Wells	Prod Bbls.
Caldwell Oil Co., Hardeman	5	200
Evans Oil Co., Byrd	1	60
Grayburg Oil Co., Byrd	2	60
Grayburg Oil Co., Merriweather	6	390
Grayburg Oil Co., Proctor	8	700
Grayburg Oil Co., Tabor	9	590
Jarmon, Moore	5	485
Magnolia Pet. Co., C. Byrd	3	325
Magnolia Pet. Co., N. Byrd	3	180
Magnolia Pet. Co., Merriweather	6	275
Mid West Tex, Byrd	1	30
Phillips Oil Co., Byrd	1	85
Prairie Lea, Merriweather	5	140
Rydal Pet. Co., Byrd	2	180
Sunland, Hardeman	3	175
Rio Bravo, Merriweather	10	850
United North & South Oil Co. — C. Byrd	5	341
Lee Byrd	4	278
Lee Byrd fee	4	532
Gideon	6	1,017
Hardeman	7	366
Malone	1	...
A. Mercer	9	1,995
F. Mercer	7	822
M. Mercer	4	370
Mills Mercer	8	1,235
Milton Mercer	5	625
Tabor	16	919
Trammell	5	245
Rios	10	1,190
Stair	6	1,079
Proctor	8	1,400
Moore	8	1,209
	183	18 348

Guadalupe County

Company and farm—	Wells	Prod. Bbls.
United North & South Oil Co. — Allen	30	3,563
Allen "A"	4	316
Baker	18	4,967
Marines	14	2,813
McKean, A.	10	918
McKean	9	839
Roberts	3	200
Shanklin	2	167
Danciger Oil & Ref., Heneiger	6	1,350
Grayburg, Allen	8	300
Grayburg, McKean	12	700
Magnolia Pet. Co., Schubert	2	900
The Texas Co., Allen	5	600
Thorman et al, Harris	2	...
J. K. Hughes, Allen	17	2,100
C. C. Cannon, Allen	1	70
	143	19,703

DEATH OF CAPT. W. C. TYRRELL.

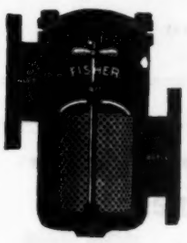
Captain W. C. Tyrrell, vice president of the Pulaski Oil Co., one of the Mid-Continent oil pioneers, died at his home in Beaumont, Tex., Sunday, September 7. Leaving his home in Iowa in 1900 for Texas, Captain Tyrrell passed through the development days at Spindletop, Sour Lake and Batson, and then came to Oklahoma, where he saw the rush at Glen Pool and the development of Bird Creek, Flat Rock, Cushing and Jennings. He was active until a short time before his death. He is survived by two sons H. C. Tyrrell, president of the Pulaski Oil Co., Tulsa; W. C. Tyrrell, Jr., of Belmond, Iowa, and two daughters, Mrs. J. W. Garth of Beaumont, Tex., and Mrs. David Rorick of Oceanside, Cal.

PRODUCER ON ILES DOME.

CASPER, Wyo., Sept. 8.—The Midwest Refining Co.'s No. 1 French on the Iles Dome, 5 miles southwest of the discovery well of the Texas Co. and Transcontinental Oil Co. at Craig, when drilled 15 feet into the Dakota sand began to flow and is estimated as good for 1,500 bbls. daily.

Protect the Working Parts of Your Pumps

Fisher Suction Strainer Keeps Foreign Matter Away from Valves and Other Parts



FISHER
Suction Strainer
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Damage to pump equipment is expensive—shutdowns cost money. This strainer reduces such expenses therefore a profitable investment.
Inexpensive yet efficient and durable. Will keep the moving parts of pumps clear of dirt, scale, and other foreign substances for years. Reduces expenses of upkeep of pumps.

Bulletin No. 1402 explains in detail. Shall we send you a copy?

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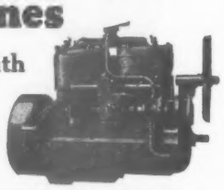

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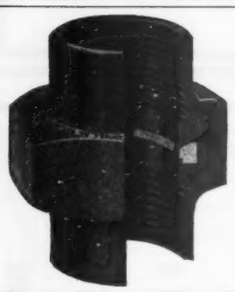

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FEW CONCERNS REFINE CRUDE OIL EXCLUSIVELY

(Continued from Page 141)

due to large flush production in the Tonkawa Pool.

The Globe Oil & Refining Co., of Blackwell, Okla., is associated with the Wentz interests, which are also large producers. The Lorraine Petroleum Co., Bristow, and the Western Oil Corp., Beckett, are owned by the same interests, which have a large part of the crude supply needed for the refineries. Among the companies which have enough crude for their refineries or a substantial part are the Hewitt Refining Co., Hewitt; Oklahoma-Texas Refining Co., Grandfield, Okla.; Texas Pacific Coal & Oil Co., Wynnewood, Okla.; Griswold Oil Corp., Wichita Falls, Tex.; Lion Oil & Refining Co., El Dorado, Ark.; Waggoner Refining Co., Electra, Tex.; Panhandle Refining Co., Wichita Falls, Tex.; Roland Oil Co., Bristow, Okla., and the Iowa Park Producing & Refining Co., Wichita Falls, Tex. In several cases the production is not owned directly but through individuals or allied concerns. The El Dorado Refining Co., El Dorado, Kans., Grant Oil Co., Augusta, Kans., Kansas Oil Refining Co., Coffeyville, Kans., Moore Refining Co., Arkansas City, Kans., Sunshine State Refining Co., Wichita Falls, Tex., and Caddo Central Oil & Refining Co., Shreveport, La.

No Crude or Jobbing

Following is the list of refineries operating on August 1 with no crude production or jobbing facilities: Garber Refining Co., Garber, Okla.; Imperial Refining Co., Ardmore, Okla.; Champlin Refining Co., Enid, Okla.; Riley Petroleum Co., Bristow, Okla.; Kanotex Refining Co., Arkansas City, Kans.; Vickers Petroleum Co., Potwin, Kans.; Miller Petroleum Co., Wichita Falls, Tex.; Megargel Refining Co., Megargel, Tex.; Orient Petroleum Co., Wichita Falls, Tex.; the Petroleum Corp., Electra, Tex.; Primrose Refining Co., Wichita Falls, Tex.; Cross Refining Co., Smackover, Ark., and Corsicana, Tex.; Kettle Creek Refining Co., El Dorado, Ark.; Pine Bluff Refining Co., Pine Bluff, Ark.; Root Refineries, El Dorado, Ark.; Nyanza Refining Co., Wilson, Okla.; Oil State Refining Co., Enid, Okla.; Rock Island Refining Co., Duncan, Okla.; Yale Oil Corp., Yale, Okla.; Commonwealth Oil & Refining Co., Moran, Kans.; Peerless Oil & Refining Co., Chanute, Kans.; Clayton Oil & Refining Co., Dallas, Tex.; Noble Oil & Gas Co., Burkburnett, Tex.; Ouachita Valley Refining Co., El Dorado, Ark., and Shreveport Producing & Refining Co. As previously explained refineries which have less than 10 per cent of their crude supply and who market less than 10 per cent of their output through their own jobbing facilities are not considered as having either crude interests or jobbing facilities. Several of the above concerns have little production and market only a small part of their output through their own stations.

Refineries with no crude production but who do have jobbing facilities are Anderson Prichard Oil Corp., Cyril, Okla.; Johnson Oil Refining Co., Cleveland, Okla.; Golden Rule Refining Co., Wichita, Kans.; Kansas City Refining Co., Kansas City, Mo.; Coleman-Nelson Refining Co., Tulsa, Okla.; Wilhoit Refining Co., Springfield, Mo.; Boardman Oil Co., Wichita Falls, Tex.; Buffalo Refining Co., Sherman, Tex.; Mexia Oil & Refining Co., Mexia, Tex.; Paris Refining Co., Paris, Tex.; Star Refining Co., Fort Worth, Tex.; Four States Refining Co., Texarkana, Tex.

INCREASE CAPITALIZATION

OKLAHOMA CITY, Okla., Sept. 8.—The Pure Oil Pipe Line Co., an Ohio corporation, has filed notice with the Secretary of State of increase in its capital investment in Oklahoma from $100,000 to $397,638. Other increases made recently included W. C. McBride, Inc., Delaware, $42,387 to $222,740; S. F. Bowser & Co., Indiana, $10,000 to $30,891, Margay Oil Corp., Delaware, $746,000 to $779,000.

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The proof is in this week's Journal. Turn to the Classified Wants Section now.
The Oil and Gas Journal

Mexican Shipments During July Show 250,000 Bbls. Less

By George Blardone

TAMPICO, Mex., Sept. 5.—Shipments of petroleum from Mexican ports of primary clearance during the month of July totaled 10,936,761 bbls., a decrease from the June movement of one-quarter million barrels, and a decrease from July, 1923, movement of a little under one million bbls.

Tampico dispatched during July 9,918,573 bbls.; Port Lobos, 182,226, while Tuxpam cleared 835,962 bbls. The heavier oils of the northern fields were represented by 6,429,374 bbls. The classes were: crudes, 5,877,254; topped crudes, 4,004,546; distillates, 475,364, while, to balance, bunkers totaling 579,597 bbls. are perforce added.

The movement in detail follows:

FROM TAMPICO
By Huasteca Petroleum Co.
(Mexican Petroleum)

July	Rig	Vessel and Destination—	Bbls.
1	Ss.	S. M. Spalding, Providence	*60,375
1	Ss.	Norman Bridge, Boston...	*40,799
2	Ss.	C. Anderson, New Orleans.	†75,628
2	Ss.	Mexoil, Tampa	*14,834
2	Ss.	Panoil, Miami	*14,506
5	Ss.	Elisha Walker, Pennsgrove	62,801
5	Ss.	Melne, New York	†60,236
5	Ss.	J. M. Danziger, New York	*62,540
5	Ss.	E. L. Doheny, Jr., Mont. & B. Aires	*80,533
5	Ss.	Mantilla, New Orleans	†57,429
6	Ss.	P. H. Harwood, Galveston.	*63,610
6	Ss.	E. L. Doheny, New York..	*58,207
7	Ss.	Fred Ewing, New York....	*59,433
7	Ss.	Fueloil, Houston	*14,416
8	Ss.	Cerro Ebano, Providence..	*70,046
8	Ss.	H. G. Wylie, Jacksonville..	*39,663
9	Ss.	J. O. Boyd, New Orleans..	†18,587
10	Ss.	C. A. Canfield, Puerto Cortez, C. A.	*57,329
12	Ss.	O. D. Bennett, New Orleans	†51,048
12	Ss.	Mantilla, Providence	*51,982
13	Ss.	P. H. Harwood, Galveston.	*63,198
13	Ss.	Mendocino, Boston	*60,179
13	Ss.	C. E. Harwood, New Orls..	†34,564
13	Ss.	Wyneric, Southampton ...	*39,435
14	Ss.	Panoil, Houston	*14,721
14	Ss.	Fueoil, Tampa	*14,370
14	Ss.	Oleric, Southampton	*52,169
14	Ss.	F. K. Lane, New York.....	*59,783
15	Ss.	S. M. Spalding, Boston.....	*60,502
15	Ss.	P. H. Harwood, Galveston.	*62,438
16	Ss.	C. A. Canfield, New York..	*56,784
17	Ss.	G. W. Barnes, New York..	*56,913
18	Ss.	G. G. Henry, New York...	*57,562
19	Ss.	H. Walker, Ceuta, Morocco.	*62,612
23	Ss.	Inveravon, Southampton ..	*56,697
23	Ss.	H. G. Wylie, Norfolk	*41,382
23	Ss.	Norman Bridge, Baltimore.	*41,095
23	Ss.	C. E. Harwood, New Orlns.	†34,902
23	Ss.	Panoil, Miami	*14,795
24	Ss.	Fueloil, Tampa	*14,392
24	Ss.	I. C. White, Portland	*62,030
24	Ss.	Mirlo, Providence	*61,413
25	Ss.	Fred Ewing, Philadelphia.	*59,640
28	Ss.	E. L. Doheny, Galveston...	*60,995
28	Ss.	C. Anderson, New Orleans.	†77,560
30	Ss.	P. H. Harwood, Boston....	*60,982
31	Ss.	Mexoil, Houston	*14,665
31	Ss.	Inverarder, Southampton..	*50,205
		Bunker deliveries	173,272
		Total	2,533,256

By Transcontinental Petroleum Co.

July	Rig	Vessel and Destination—	Bbls.
1	Ss.	L. J. Drake, New York....	38,636
1	Ss.	L. J. Drake, New York....	†21,324
1	Ss.	J. A. Moffett, Jr., Nicaragua	34,194
1	Ss.	J. A. Moffett, Jr., Nicaragua	*38,168
2	Ss.	Solana, Baton Rouge.....	58,535
2	Ss.	Baytown, Baytown	23,937
2	Ss.	Agwisun, New York	62,350
2	Ss.	Somerset, Baton Rouge....	48,631
3	Ss.	Swiftscout, Fall River....	64,906
4	Ss.	Massasoit, New York	39,883
4	Ss.	Fred. Kellogg, New York.	56,878
5	Ss.	Camden, Baytown	59,042
5	Ss.	Wm. H. Doheny, New York	58,193
6	Ss.	Vaba, Baltimore	44,411
6	Ss.	G. H. Henry, New York....	54,911
7	Ss.	Masconomo, New York....	39,847
7	Ss.	Corning, Tampa	47,033
7	Ss.	Chas. Pratt, Panama.....	*74,747
9	Ss.	Niobe, New York	*64,626
9	Ss.	Baton Rouge, Key West..	47,416
9	Ss.	John Worthington, Baltimore	53,223
10	Ss.	Halsey, Baltimore	56,936
12	Ss.	Baytown, Baytown	23,872
12	Ss.	Geo. H. Jones, Baytown...	62,343
15	Ss.	Dora, Fall River	47,006
17	Ss.	Corning, Baton Rouge	50,064
17	Ss.	Geo. H. Jones, Baytown...	64,358
18	Ss.	Mexicano, New York	19,549
18	Ss.	Baton Rouge, Jacksonville.	48,609
19	Ss.	Swiftsure, Boston	50,845
19	Ss.	L. J. Drake, New York....	40,061
19	Ss.	L. J. Drake, New York....	†21,137
20	Ss.	Baytown, Baytown	23,825
20	Ss.	Pioneer, Cienfuegos	37,166
20	Ss.	Pioneer, Cienfuegos	*20,364
20	Ss.	Ardmore, Ponce & S. Juan	51,010
20	Ss.	Ardmore, Porto Rico	*12,027
22	Ss.	Matinicock, Montreal	63,695
22	Ss.	Princeton, Baytown	48,451
24	Ss.	Massasoit, Baltimore	39,580
26	Ss.	Camden, Baytown	59,681
26	Ss.	Potomac, Southampton ...	*29,503
27	Ss.	H M. Flagler, Montreal...	62,883
29	Ss.	Baytown, Baytown	24,109
		Bunker deliveries	82,161
		Total	2,059,826

By Cia. Mexicana-Holandesa La Corona, S. A.
(Royal Dutch-Shell)

July	Rig	Vessel and Destination—	Bbls.
1	Ss.	Agwiworld, Rotterdam	*53,234

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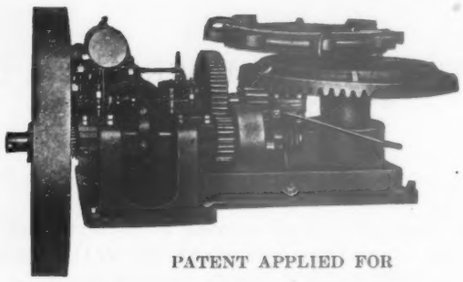

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19	Ss.	Corbis, New York	*50,058
19	Ss.	El Oso, Las Palmas	57,095
20	Ss.	Crentaula, Las Palmas	*49,241
23	Ss.	San Zotico, Lizard f/o	*49,755
23	Ss.	Em. Deutsch, Baltimore	49,550
24	Ss.	Ansaldo III, London	*38,744
25	Ss.	Anomia, Hamburg	*43,887
28	Ss.	Davanger, Trieste	*58,200
29	Ss.	Lacuna, New Orleans	45,732
29	Ss.	Topila, Philadelphia	49,926
31	Ss.	Limicana, London	*46,951
31	Ss.	British Star, New Orleans	60,353
31	Ss.	Dosina, Havre	*46,597
		Coastwise deliveries (P. M.)	100,472
		Bunker deliveries	163,809
		Total	1,690,518

By Mexican Sinclair Petroleum Corp.

July	Rig	Vessel and Destination—	Bbls.
1	Ss.	E. V. R. Thayer, New Orleans	63,692
2	Ss.	A. E. Watts, Cuba	63,052
5	Ss.	W. L. Connelly, Pt. Arthur	21,044
6	Ss.	Madrona, Tiverton	54,863
8	Ss.	J. M. Cudahy, New Orleans	64,110
9	Ss.	E. W. Sinclair, Houston	44,810
11	Ss.	Aztec, Fall River	49,208
13	Ss.	J. F. Farrell, Cuba	62,670
13	Ss.	E. V. R. Thayer, Texas City	63,386
14	Ss.	Gene Crawley, Port Arthur	26,380
15	Ss.	Mirita, Cuba	54,844
16	Ss.	Harry Farnum, Purto Castillo, C. A.	31,404
17	Ss.	J. M. Cudahy, New Orleans	63,467
19	Ss.	E. W. Sinclair, Texas City	44,569
23	Ss.	W. L. Connelly, New Orleans	31,612
24	Ss.	J. F. Farrell, Cuba	62,883
24	Ss.	Gene Crawley, Jacksonville	31,623
24	Ss.	Swiftscout, Fall River	69,619
25	Ss.	E. W. Sinclair, New Orleans	44,419
27	Ss.	J. M. Cudahy, New Orleans	64,979
27	Ss.	Madrono, Cuba	56,127
29	Ss.	Harry Farnum, Houston	31,869
31	Ss.	Mirita, Texas City	56,997
		Coastwise deliveries	47,710
		Total	1,205,337

By Mexican Gulf Oil Co.

July	Rig	Vessel and Destination—	Bbls.
4	Ss.	Currier, Port Arthur	45,835
4	Ss.	Sucrosa, Galveston	45,521
5	Ss.	Trinidian, Houston	22,838
6	Ss.	Gulfstar, Port Arthur	66,979
8	Ss.	Gulfpoint, New Orleans	60,928
9	Ss.	Ligonier, Port Arthur	32,941
10	Ss.	J. M. Guffey, Port Arthur	20,070
11	Ss.	Winifred, Port Arthur	19,626
12	Ss.	Sucrosa, Galveston	47,249
13	Ss.	Vaarlie, New Orleans	53,698
14	Ss.	Trinidian, Port Arthur	24,524
17	Ss.	Gulfpoint, Port Arthur	62,618
17	Ss.	J. M. Guffey, Tampa	18,208
18	Ss.	Swiftsure, Boston	14,149
18	Ss.	Gulftrade, Port Arthur	66,270
18	Ss.	Winifred, Port Arthur	19,441
20	Ss.	Sucrosa, Galveston	46,845
22	Ss.	Trinidadian, Port Arthur	24,022
25	Ss.	Gulfstate, Port Arthur	63,275
27	Ss.	Ligonier, Houston	32,265
27	Ss.	J. M. Guffey, Savannah	18,995
28	Ss.	Sucrosa, Galveston	46,895
30	Ss.	Currier, Port Arthur	45,823
30	Ss.	Gulfoil, Port Arthur	49,789
31	Ss.	Gulfstar, Port Arthur (5)	65,923
		Bunker deliveries	22,154
		Total	1,036,881

By East Coast Oil Co.

July	Rig	Vessel and Destination—	Bbls.
4	Ss.	Tamiahua, Galveston	84,401
6	Ss.	F-Sulphur 6, Freeport	23,727
8	Ss.	Topila, New Orleans	48,948
18	Ss.	Tamiahua, Galveston	83,995
25	Ss.	Tamiahua, Galveston	85,572
		Bunker deliveries	12,020
		Total	338,663

By Empire Gas & Fuel Co.

July	Rig	Vessel and Destination—	Bbls.
1	Ss.	Mary Luckenbach, Fall River	49,156
14	Ss.	Mirlo, New Orleans	55,535
17	Ss.	Lampas, Rotterdam	46,322
		Coastwise deliveries	91,558
		Total	242,571

By The Texas Co.

July	Rig	Vessel and Destination—	Bbls.
14	Ss.	Pennsylvania, Norfolk	52,029
18	Ss.	Derbyline, Providence	*59,921
24	Ss.	Louisiana, San Juan	*23,687
31	Ss.	Occidental, Marcus Hook	*55,399
		Bunker deliveries	12,382
		Total	203,418

By New England Fuel Oil Co.

July	Rig	Vessel and Destination—	Bbls.
13	Ss.	Trontolite, Tocopilla	53,177
26	Ss.	Toco, Tocopilla	50,080
27	Ss.	Clement Smith, Boston	65,620
		Bunker deliveries	6,567
		Total	185,444

By Mexican Eagle Oil Co., Ltd.

July	Rig	Vessel and Destination—	Bbls.
29	Ss.	San Gregorio, Buenos Aires	*42,128
30	Ss.	San Eduardo, New York	*53,647
		Coastwise deliveries (P. M.)	*32,952
		Bunker deliveries	3,069
		Total	131,796

By Panuco Boston Oil Co.

July	Rig	Vessel and Destination—	Bbls.
9	Ss.	Torres, Philadelphia	46,141

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26	Ss.	Caloria, Philadelphia	39,386
		Total	85,527
		By Intercean Oil Co.	
July Rig		Vessel and Destination—	Bbls.
13	Ss.	Solana, Baltimore	59,320
		By International Oil Co.	
July Rig		Vessel and Destination—	Bbls.
10	Ss.	San Leon, Montreal	55,560
		By Unity Oil Corp.	
July Rig		Vessel and Destination—	Bbls.
7	Ss.	Golaa, New York.....	51,463
		Bunker deliveries	3,878
		Total	55,341
		By Pierce Oil Corp.	
July Rig		Vessel and Destination—	Bbls.
31	Ss.	Appalachee, Manchester...	*31,050
		Bunker deliveries	4,065
		Total	35,115
		FROM PORT LOBOS	
		By Transcontinental Petroleum Co.	
July Rig		Vessel and Destination—	Bbls.
8	Ss.	Wm. Green, New York....	27,342
10	Ss.	J. Worthington, Baltimore	22,960
27	Ss.	Niobe, New York	71,191
28	Ss.	H. M. Flagler, Montreal..	15,733
		Total	182,226
		FROM TUXPAM	
		By Mexican Eagle Oil Co., Ltd.	
July Rig		Vessel and Destination—	Bbls.
2	Ss.	San Gerardo, Southampton	*24,133
4	Ss.	San Zotico, New York....	*51,571
8	Ss.	San Melito, Santos.....	*30,798
14	Ss.	Marinula, Land's End f/o	*10,791
18	Ss.	San Geronimo, Land's End f/o	*18,523
22	Ss.	San Fabian, Buenos Aires	*106,115
26	Ss.	San Fraterno, Lizard f/o..	*102,509
30	Ss.	San Gregorio, Buenos Aires	*56,025
30	Ss.	San Lamberto, Lizard f/o	*31,997
		Coastwise deliveries	†30,235
		Coastwise deliveries	*120,780
		Bunker deliveries	96,220
		Total	679,707
		By Penn Mex Fuel Co.	
July Rig		Vessel and Destination—	Bbls.
13	Ss.	Swiftarrow, Fall River....	78,227
26	Ss.	Swiftwind, Fall River....	78,028
		Total	156,255

JULY SUMMARY

From—	
Tampico	9,918,573
Port Lobos	182,226
Tuxpam	835,962
Total July, 1924.....	10,936,761
Total July, 1923.....	11,809,081
Decrease, July, 1924.....	872,320

DIVISION OF MOVEMENT

To—	
United States	7,031,363
United Kingdom	756,181
Continent	565,334
South America	497,148
Coastwise	423,707
Cuba	397,843
Canada	245,512
Central America	161,096
Azores	151,622
Panama	74,747
Mediterranean Ports	62,612
Bunkers (to balance).....	579,597
Total	10,936,761

(*denotes topped crudes; †denotes distillates.)

CONSIDER SIMPLIFIED COEFFICIENTS TABLE

Another step has been taken toward a simplified table of coefficient of expansion for use by refiners and natural gasoline manufacturers. At a meeting of the Mid-Continent group of the advisory committee of the American Petroleum Institute on testing methods and specifications for petroleum and its products held in the rooms of the Mid-Continent Oil & Gas Association, discussion centered around the abridged table for correction of volume of petroleum products for temperature. Walter Miller, of the Tidal Refining Co., Tulsa, was secretary of the meeting.

The committee will report to Dr. R. P. Anderson, technologist of the American Petroleum Institute, on the recommendations of the Mid-Continent group concerning the adoption of the abridged table. The committee accepted the principle of the table promulgated by Dr. T. G. Delbridge, of the Atlantic Refining Co., with the addition of one group for the high gravity natural gasolines. This will result in a table of six gravity groups.

The committee predicated its acceptance on any revisions which facts may prove necessary to make the figures in the tables to correspond with the averages as given by the United States Bureau of Standards in its circular No. 154, and the second provision that temperature correction tables for tank cars of four representative capacities be included as well. The adoption of the latter table will make the corrections for tank cars merely a matter of addition or subtraction using figures already computed and shown in the tables.

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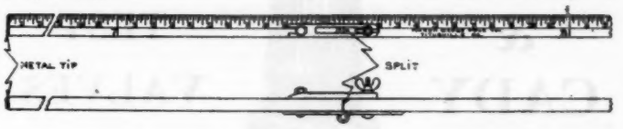

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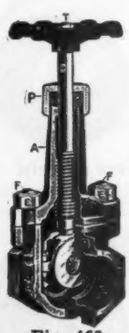

Fig. 460

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Spanish Government Loans for Company Seeking Oil There

The keen competition among oil producers throughout the world in the search for new deposits of petroleum is reflected in the increasing exploration activities reported from Spain. The number of oil-operating companies in that country has been greatly augmented during the last year, according to a recent report by United States Assistant Commissioner James G. Burke at Madrid. At the beginning of 1923 there were 146 claims outstanding for oil development, covering a territory of 61,000,000 hectares, while up to the present time approximately 60 more concessions have been granted, bringing the total area up to 106,000,000 hectares. According to figures published by the ministry of hacienda, 36 of these concessions are in the Provinces of Alava, Barcelona, Burgos, Cadiz, Gerona, Guipuzcoa, Leon, Navarre, and Santander, where it is claimed that there are undoubted evidences of the presence of oil. Drilling thus far, however, has resulted only in the finding of some small showing of oil and a considerable amount of gas.

The leading company interested in petroleum developments at this time is the Hispano Britannica, Madrid, which has a capital of 10,000,000 pesetas (1 peseta equals $0.1346 at current exchange) and owns extensive lands in the Provinces of Burgos, Navarre, and in Andalusia, and Morocco. This concern is particularly strong at this time and is to have a part in a large new corporation to be known as the Petrolifera Nacional. The new company, it is rumored, is to have a monopoly for supplying the Spanish Army and Navy with petroleum products. It will be domiciled in Madrid, will have a capital of 100,000,000 pesetas, and, under the new law for the protection of national industries, will probably receive a loan of 15,000,000 pesetas from the Government, together with a guaranty of 5 per cent return on investment.

The fluctuations in the price of petroleum products have undoubtedly stimulated the interest in oil developments throughout Spain, and it is felt that the 200,000,000 pesetas paid yearly for imports of petroleum products should be spent at home if a domestic supply can be found.

EUROPEAN INTEREST IN PETROLEUM EXPOSITION

Two more of the most distinguished oil men of the European continent have announced their intention of attending the International Petroleum Exposition in Tulsa, Okla. A. Serebrowsky, president of the Russian Oil Trust, who is now touring the United States making a study of the industry in America, wired President L. B. Jackson, asking to be given a place on the program of the Petroleum Congress to discuss the Russian oil fields. He also engaged space for an exhibit. Alfred Wirth, president of the company which bears his name of Erkelenz, Rhineland, Germany, one of the foremost manufacturers of oil field equipment in Europe, has also wired that he will attend the oil show in person, to meet the leaders of the American oil business, and to study the American tools shown in the exhibits. Wirth is exhibiting models of two of his most generally used drilling rigs, operating in fields outside of America. His products are not sold in this country and he is making no attempt to establish a market here, he stated.

Serebrowsky will make an exhibit of maps, diagrams, pictures and samples of the products of the Russian oil fields. His talk promises to be of especial interest because of his connection with the Soviet Government, and because he has been given an opportunity to understand the system of the American oil industry which offers an interesting contrast to that of Russia.

A second German company, Allgemeine

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Oel-Handels Gesellschaft mit beschrankter Haftung, have written making inquiries about the Exposition, and stating that they intend to send one of their number to represent them at the gathering. A third company, Erda, of Gollingen, Germany, manufacturers of geophysical instruments used in all countries of Europe, have completed their arrangements for their exhibit, which will be of instruments used in petroleum geology.

France will be represented by M. Ehrhardt, president of the Pechelbronn Society, and the superintendent, and several directors of the same company with a group of their friends. Italy, England and the Latin American countries will send an imposing representation.

PETROLEUM PROGRAM OF SAFETY CONGRESS

Safety work in the various phases of the oil business will be discussed at the meetings of the petroleum section during the thirteenth annual congress of the National Safety Council, to be held at Louisville, Ky., September 29 to October 3. The first session of the Petroleum Section will be held at 10 a. m., September 30, in the Brown Hotel. The general business meeting will be given over to the reports of officers and committees and the appointment of a nominating committee. W. R. Boyd, Jr., assistant general secretary and counsel of the American Petroleum Institute will deliver an address on "The Oil Industry's Responsibility to Safety." F. A. Epps, of the Tide Water Oil Co., New York City, will speak on "Fire Prevention in Oil Properties." Both speeches will be followed by discussion.

The following morning will be devoted to the election of officers of the Petroleum Section meeting. The addresses which follow will be hinged around the idea, "Effective Methods of Safety Organization." D. J. Wallace, of the Humble Oil & Refining Co., Houston, Texas, will speak for the producing division, and V. R. Currie, of The Texas Co., Houston, will lead the discussion. H. M. Stevenson of the Humble Pipe Line Co., Houston, will speak for the pipe line division, while E. D. Murphey, of Cosden & Co., Tulsa, will lead the discussion. William D. Winslow, of The Texas Co., New York City, will speak for the manufacturing division and E. A. Trimm, of the Standard Oil Co. of New Jersey, will lead the discussion. F. C. Singleton, of the Standard Oil Co. of Indiana, will speak for the marketing division and Roy S. Bonsib, of the Standard Oil Co. of New Jersey, will lead the discussion.

At the final session of the section on the following day, H. C. Fowler, of the United States Bureau of Mines Experiment Station, Bartlesville, Okla., will speak on "A Review of the Petroleum Accident Records in Oklahoma During 1923." Roy W. Kelly, of the Associated Oil Co., San Francisco, will speak on "California's Recent Progress in Petroleum Safety." Discussion on the papers and a general round-table discussion will close the work of the session. At the general meetings of the congress, a number of safety questions of interest to the oil industry will be discussed also.

Officers of the Petroleum Section are as follows: Chairman, D. J. Wallace, Humble Oil & Refining Co., Houston, Texas; Vice Chairman, Producing Division, V. R. Currie, The Texas Co., Houston, Texas; Vice Chairman, Pipe Lines Division, D. J. Murphey, Cosden & Co., Tulsa, Okla.; Vice Chairman, Manufacturing Division, E. A. Timm, Standard Oil Co. of New Jersey, Bayonne, N. J.; Vice Chairman, Marketing Division, Roy S. Bonsib, Standard Oil Co. of New Jersey, New York City; Secretary, E. J. Senne, Vacuum Oil Co., New York City.

RUMANIAN CLAIM SETTLED?

A Berlin dispatch says negotiations between the Standard Oil Co. and the Government, regarding the former's $10,000,000 claim arising out of Germany's use during the war of the Standard Oil Co.'s wells in Rumania have resulted in a settlement. The terms were not disclosed.

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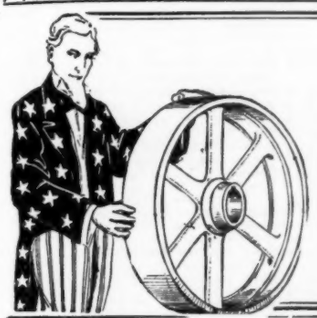

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Detailed Operations in Western Fields for August, 1924

Summary of All Fields

Field—	Comp.	Prod.	Dry	Gas
Eastern	415	2,108	62	75
Central Ohio	60	214	14	38
Indiana	9	137	4	0
Kentucky	199	2,639	26	4
Tennessee	2	5	1	0
Mississippi	1	0	1	0
Illinois	26	964	4	1
Kansas	102	13,811	39	8
Oklahoma	357	121,870	98	33
North Central Texas	206	14,377	94	6
East Central Texas	38	9,117	14	1
Gulf Coast	103	21,525	32	0
Southwest Texas	46	13,335	4	0
Louisiana	53	14,342	14	21
Arkansas	131	16,376	13	4
Wyoming	78	7,526	5	4
Montana	24	3,022	5	1
Colorado	3	2,000	1	1
Total August	1,921	244,407	435	197
Total July	2,100	254,266	491	153
Difference	179	9,759	56	44

Rigs and Wells Drilling

Field—	Rigs	Drg.	Total
Eastern	161	460	621
Lima	5	73	78
Indiana	1	23	24
Central Ohio	39	95	134
Kentucky	7	216	223
Tennessee	3	13	16
Mississippi	6	20	26
Georgia	1	4	5
Alabama	0	11	11
Illinois	1	31	32
Kansas	72	230	302
Oklahoma	261	1,114	1,375
North Central Texas	74	264	338
East Central Texas	10	89	99
Gulf Coast	25	118	143
Southwest Texas	110	403	513
Arkansas	42	160	202
North Louisiana	14	74	88
Wyoming	96	309	405
Montana	25	131	156
Colorado	9	44	53
Utah	2	25	27
New Mexico	2	18	20
Total August	965	3,925	4,890
Total July	1,028	4,221	5,249
Lima	68	1,040	4 1
Difference	63	296	359

Note.—In the following report the Section, Township and Range are given first; then the farm, the owner, the serial number of the well and the initial production of the well. The rigs and wells drilling are set forth in similar manner. In lines where the Section, Township and Range are missing the wells are located in the Sections, Townships and Ranges which appear next above in the report.

OKLAHOMA FIELDS

Summary of Wells Completed

County—	Comp.	Prod.	Dry	Gas
Washington-Nowata-Rogers	21	160	8	2
Osage	62	10,581	16	8
Tulsa	9	397	2	3
Okmulgee	21	597	7	2
Okfuskee-Hughes-Seminole-McIntosh	67	55,744	16	3
Muskogee-Wagoner	19	233	13	2
Creek	40	8,225	10	4
Pawnee	13	3,320	2	0
Payne	5	370	1	0
Kay	28	30,312	8	2
Garfield-Noble	12	5,219	1	1
Carter	29	1,683	4	2
Stephens-Cotton	9	59	3	1
Miscellaneous	22	4,970	7	3
Total August	357	121,870	98	33
Total July	424	109,454	118	34
Difference	67	12,416	20	9

Summary of New Operations

County—	Rigs	Drg.	Ttl.
Nowata and Rogers	0	4	4
Osage	32	136	168
Tulsa	15	54	69
Okmulgee	15	52	67
Muskogee, Wagoner and McIntosh	7	44	51
Okfuskee, Seminole and Hughes	90	182	272
Creek	25	96	121
Pawnee	9	33	42
Payne	1	22	23
Kay	17	70	87
Garfield and Noble	8	60	68
Carter	15	90	105
Stephens and Cotton	3	43	46
Miscellaneous	24	228	252
Total August	261	1,114	1,375
Total July	253	1,252	1,505
Difference	8	138	130

Wells Completed

WASHINGTON COUNTY

8-23-13 Little, Tuloma Oil 1..... gas
16-24-13 Shawnee, Louvain Oil 2..... dry
24-22-13 Nachtagel, J. H. Middleton 7 30
27-23-13 John Riley, T. K. Smith 1.... dry
19-26-14 Tatum, H. O. Dixon 6..... 5
Tatum, H. O. Dixon 7..... 2
13-26-14 Cole, T. E. Rice 1..... dry
8-28-14 Oeese, Geo. C. Nellis et al 1 dry
22-29-12 Boren, Ramsey Pet. 3..... dry
Boren, Ramsey Pet. 5..... 10
Boren, Ramsey Pet. 6..... 10

Wells completed..... 11
Production..... 57
Dry..... 5
Gas..... 1
Gas production..... 9,000,000

NOWATA COUNTY

27-26-15 John Moffett et al, J. A. Stager 2..... 10
13-26-15 Wilson, F. L. Benage et al 8.. 5
3-25-17 Roberts, Unity Oil 6..... dry
27-26-15 Grace Baggett, John Jelink 4.. 5
15-25-16 Zelgar, Frazier-Smith 1..... 20
27-27-16 Wilson, Harmon-Glass 16..... 3

Wells completed..... 6
Production..... 43
Dry..... 1
Gas..... 0
Gas production..... 0

ROGERS COUNTY

12-23-15 Dawson, Scott-Thymes 1..... gas
28-24-16 Carver Bros., Carver-Pearson 1 dry
13-24-16 Sloctor, A. E. Lynch 4..... 60
12-22-16 Wilhite, Gray Bros. 1..... dry

Wells completed..... 4
Production..... 60
Dry..... 2
Gas..... 1
Gas production..... 250,000

OSAGE COUNTY

22-26-12 Nevlin et al 1..... 1
20-24-12 Bell O. & G. 3..... 5
Bell O. & G. 4..... dry
31-28-10 Tulhoma Oil 14..... dry
15-24- 8 I. T. I. Oil 296..... gas
32-24- 8 Mutual Oil 12..... dry
Peters et al 4..... gas
14-22- 8 Riverland Co. 4..... 100
20-23- 8 I. T. I. Oil 324..... gas
4-23- 9 C. B. Peters 1..... 15
2-21- 8 Barnsdall Oil 7..... dry
7-26- 6 Phillips-Skelly 7..... 35
20-27- 6 Phillips Pet. 6..... 100
Phillips Pet. 1..... 100
Phillips Pet. 2..... 100
11-27- 8 Phillips Pet. 13..... 250
Phillips Pet. 14..... 300
14-27- 5 Cosden O. & G. 15..... 40
23-27- 5 Phillips Pet. 8..... 400
29-25- 8 Texas Co. 6..... 2200
34-25- 8 Marland Oil 4..... 1800
31-25- 9 Test Log Oil 1..... gas
22-22- 9 U. S. Oil 3..... 15
20-23- 8 Marland Oil 9-B..... 48
Marland Oil 12..... 920
29-23- 8 Marland Oil 3..... 15
13-21- 9 S. S. Home 81..... dry
16-26- 6 Carter Oil 12..... 420
Carter Oil 9..... 450
20-27- 6 Phillips Pet. 3..... 100
26-27- 5 Mid-Kansas O. & G. 5..... 50
28-28-11 Owen Osage Oil 299..... dry
27-29-11 Beacon Oil 2..... 125
14-24- 8 I. T. I. et al 1..... dry
15-24- 8 Marland et al 3..... dry
20-23- 8 Marland Ref. 8..... 700
16-26- 6 Carter Oil 13..... 540
20-27- 6 Phillips Pet. 4..... 75
11-27- 5 Phillips Pet. 9..... 345
26-27- 5 Phillips Pet. 8..... 150
Phillips Pet. 11..... 100
Phillips Pet. 12..... 75
20-28-11 Evidence Oil 76..... dry
28-29-11 Craig & Campbell 1..... dry
Craig & Campbell 3..... dry
26-26- 8 Petroleum Drilling 9..... gas
28-25- 8 E. B. Lawson 8..... 15
20-25- 8 Thompson et al 3..... 100
3-23- 8 Superior Oil 4..... 15
20-23- 8 Marland Refining 11-A..... 10
16-26- 6 Carter Oil 15..... 540
21-28- 7 Comar Oil 1..... 7
29-25- 8 The Texas Co. 2..... gas
6-25-11 F. M. Prince 1..... gas
32-24- 9 Carter Oil 4..... gas
20-23- 8 Red Bank Oil 3..... 20
19-22-11 Riverland Oil 5..... abd
12-20-10 Sand Springs Home 79..... dry
11-27- 5 Phillips Pet. 11..... 300
4-25- 8 Zach Barnes Pet. 1..... dry
2-23-10 Gypsy Oil 1..... dry
1.20-11 Mutual Oil 1..... dry

Wells completed..... 62
Production..... 10581
Dry..... 16
Gas..... 8
Gas production..... 42,500,000

TULSA COUNTY

8-19-12 Townsite, Caldwell & Sons 1 dry
Townsite, Hartman & Williams 1..... 40
28-19-12 Yargee, Pennok Oil 7..... gas
13-18-12 Donaldson, Associated P. & R. 1-A..... abd
1-17-14 Drews, Dean et al 2..... 75
5-16-13 Bertholf, Thompson & Black 3 gas
18-19-10 Tiger, Oklahoma P. & R. 4..... 30
26-19-11 Johnson, Superior Oil 3..... 252
6-19-12 Bruner, C. Page 3..... gas

Wells completed..... 9
Production..... 397
Dry..... 2
Gas..... 3
Gas production..... 10,500,000

OKMULGEE COUNTY

24-12-14 Johnson, Iron Mountain Oil 5.. dry
22-13-12 Atkins, J. H. Rebold 1..... 5
17-14-13 Berryhill, Lapsy Neal 3..... dry
3-15-11 Grayson, Jackson & Wise 2.. 20
14-15-11 Richards, Waite Phillips 10... gas
16-14-14 Colbert, Meisner 11..... 10
25-13-12 Smith, Transcontinental Oil 2. 50
29-14-12 Smith, Newman et al 1..... dry
4-12-12 Tiger, Colvin et al 3..... 10
36-11-12 King, Jess Rebold 1..... dry
7-12-12 Timer, A. D. Morton 2..... 306
36-12-13 Bruner, Pulaski Oil 6..... gas
28-14-13 Alexander, Baker et al 1..... dry
6-12-13 Grayson, Southern States Oil 1 12
10-15-11 Cooper, Beggs O. & G. 13..... 44
4-11-12 Hawkins, Henryetta O. & G. 5 dry
6-12-12 Mitchell, Gladys Belle Oil 5... 50
16-13-11 Dice, Josey Oil 1..... 50
4-15-11 Lewis, D. D. Michelson 1..... 20
23-15-11 Hill, Catlett & Davis 1..... dry
15-12-13 Bruner, Diamond Oil 11..... 20

Wells completed..... 21
Production..... 597
Dry..... 7
Gas..... 2
Gas production..... 28,000,000

OKFUSKEE, HUGHES, SEMINOLE AND McINTOSH COUNTIES

17-11-14 Cumberledge, Tiger Mountain Oil 3..... dry
4- 9- 9 Alexander, Papoose Oil 5.....1805
Carter, Gibson et al 1.....1600
9- 9- 9 Hill, Papoose Oil 2.....1200
17- 9- 9 Brown, Gilcrease Oil 2..... 195
22-10- 8 Yahola, Carter Oil 1..... 161
Harjo, Holm & Jarvis 3..... dry
7- 7- 8 Mission, Cosden O. & G. 1..... dry
14- 7- 8 Jacobs, Producers & Refiners 1 dry
21- 8- 8 Bowlegs, Magnolia Pet. 1..... dry
29- 8- 8 Walker, Dixie Oil 3..... 100
36-13-17 Arnett, Douglas et al 1..... dry
15-11-11 Tucker, Deaner et al 8..... dry
35-11-11 Smith, Atlantic Oil Prod. 2.. 17
28-12-10 Nivens, Burke et al 1..... dry
13-10-11 Fife, Transcontinental Oil 1.. dry
1-10- 9 Wing, Skelly & Cosden 1..... dry
10-10- 8 Little, McMann 1.....1225
15-10- 8 Willis, Gypsy Oil 2.....2880
16-10- 8 Bruner, Gypsy Oil 5..... 720
21-10- 8 Harjo, Tidal Osage Oil 6.....1200
29- 8- 8 Joseph, Amerada Pet. 1..... dry
25-11- 9 Hill, Robinson et al 1..... gas
9-10- 8 Dunner, Carter Oil et al 1....1140
10-10- 8 Brown, Roxana Pet. 1.....2047
15-10- 8 Yahola, Cosden O. & G. 1.....1500
Yahola, Cosden O. & G. 2.....1000
Willis, Cosden O. & G. 2.....1080
16-10- 8 Bruner, Amerada Pet. 4.....1065
Bruner, Amerada Pet. 5.....1319
Bruner, Gypsy Oil 1.....1355
32- 8- 8 Grayson, Sinclair O. & G. 2.... 30
29- 8- 8 Walker, Sinclair O. & G. 3.... 75
3- 9- 9 Grayson, Slick et al 1..... 800
4- 9- 9 Alexander, Papoose Oil 8..... 400
Tiger, Transcontinental Oil 1 325
Tiger, Transcontinental Oil 3 650
Alexander, Berry Pet. 4..... 900
12- 7- 9 Hawkins, Kingwood Oil 1.... dry
32- 8- 8 Tiger, Magnolia Pet. 1.....1150
4- 9- 9 Simon, Atlantic et al 2..... dry
9-10- 8 Bruner, Pure Oil 1.....1700
15-10- 8 Bruner, Gypsy Oil 3.....1300
Willis, Gypsy Oil 1.....1440
Bruner, Wilcox O. & G. 2.... 150
Bruner, Wilcox O. & G. 5.....1510
Tiger, Snowden et al 1.....1506
16-10- 8 Bruner, Gypsy Oil 6.....1050
Bruner, Hoffer Oil 2.....1766
22-10- 8 King, Shaffer O. & R. 5.....1056
King, Shaffer O. & R. 6.....1440
29- 8- 8 Brown, Homaokie Oil 1..... 245
24-11-11 Field, Phillips Pet. 14..... gas
28-12-10 Niven, Independent O. & G. 2 dry
15-10- 8 Alexander, Mid-Kansas O. & G. 2.....1400
Alexander, Mid-Kansas O. & G. 3.....2380
Alexander, Mid-Kansas O. & G. 4.....3300
16-10- 8 Bruner, Gypsy Oil 5..... 720
21-10- 8 Harjo, Independent O. & G. 2 500
22-10- 8 Yarhola, Shaffer O. & R. 3....1160
Yarhola, Shaffer O. & R. 4.... gas
Yarhola, Shaffer O. & R. 5....4412
36-12-10 Fisher, Atlantic O. P. 1..... 125
16-10- 8 Hall, Carter Oil 4.....2461
22-10- 8 Yarhola, Carter Oil 1..... 184
Yarhola, Carter Oil 2..... abd
Harjo, Holm & Jarvis 3..... abd

Wells completed..... 67
Production..... 55744
Dry..... 16
Gas..... 3
Gas production..... 70,000,000

MUSKOGEE-WAGONER COUNTIES

12-15-15 Corbray, Jack Summers 1.... gas
34-14-15 Durant, Henson et al 1..... dry
15-15-15 Tucker, Frances et al 2..... gas
30-14-16 Smith, Vogler et al 1..... dry
29-14-15 Carter, Bohnert et al 2..... dry
23-18-16 Childers, Peterson & Show 1.. dry
33-17-17 Smith, A. P. Conrad 1.... dry
12-16-17 Marshall, Peer Oil 1..... dry
36-13-17 Annett, Douglas & Heller 1.. dry
26-18-16 Burgess, Darby Pet. 1..... 3
Fulatka, Hanson 2-A..... 20
Fulatka, Hanson 4..... dry
27-18-18 Williams, R. H. Perry 1-A.... dry
14-17-16 Partridge, Globe Oil 2..... 200
15-17-16 Berryhill, Whaleback et al 10 abd
21-17-17 Marshall, White Eagle O. & R. 1..... dry
1-16-16 Sam Lumman, W. D. McCoy 1.. dry
17-16-16 Sugar, R. W. Leftwich 1..... dry
6-14-19 Crittenden, N. D. Wells 2..... 10

Wells completed..... 19
Production..... 233
Dry..... 13
Gas..... 2
Gas production..... 2,000,000

CREEK COUNTY

35-15- 8 Hill, C. G. Tibbons 1..... dry
22-16- 8 Sloan, Cortes Oil 5..... dry
16-16- 9 Nowata O. & R. 2..... dry
21-17- 8 Stidham, Transcontinental Oil 2 dry
32-17- 8 Washington, Olean Pet. 1..... 40
16-15- 8 Fish, Gypsy Oil 1..... dry
17-15- 8 Yahola, Pure Oil 13..... 500
5-16- 8 Pitman, Prairie O. & G. 6.... 40
22-16- 8 Cane, Gypsy Oil 2..... dry
25-16- 8 Buckner, Roland Oil 1..... dry
16-16- 9 Unallotted, Frank Moore 2.... 50
18-14- 9 Sneed, C. G. Tibbons 1..... gas
7-14- 7 Jack, Waite Phillips 3..... 1630
Lewis, Amerada Pet. 6.....1200
Jack, Roxana Pet. 1.....1400
26-15-10 Sewell, Plymouth Pet. 4..... 85
22-14- 9 Mayes, Billingsiea 2..... dry
15-15- 8 Warnocke, Cosden O. & G. 1.. 10
23-14- 9 Wolfe, Geo. W. Davis 1..... 15
18-14- 9 Sneed, C. G. Tibbons 1..... 5
2-14- 8 Unallotted, United Central Oil 1 50
6-14- 7 Coyarka, Transcontinental O. 1 450
34-14-10 Flanagan, Cosden O. & G. 1.. dry
32-17- 8 Washington, Page Bros. 1..... gas
Artusse, Sartain Bros. 2..... gas
17-18- 9 West, Jarvis & Holm 2..... 150
17-15- 8 Yahola, Pure Oil 14..... 350
9-16- 9 Childers, Jomac Oil 5..... dry
22-14- 9 Mayo, West et al 2..... gas
7-14- 7 Jack, Wood & Farren 1..... 100
23-19- 8 Harman, F. O. Howarth 1..... 30
8-16-12 Townsite, Anthony et al 1..... 320
Townsite, Dr. Boso et al 1..... 120
Townsite, J. J. Shock et al 1.. 120
Townsite, Stover et al 1..... 320
Maxwell, Riverland Oil 5..... 150
Maxwell, Riverland Oil 6..... 110
Maxwell, Riverland Oil 7..... 60
Townsite, Suppes et al 1..... 75
Townsite, Suppes et al 2..... 100

Wells completed..... 60
Production..... 8235
Dry..... 10
Gas..... 4
Gas production..... 53,000,000

PAWNEE COUNTY

33-23-3e Miller, Watchorn O. & G. 11.. 480
17-20- 7 Van Eman, Clifford et al 1... 350
4-20- 5 Sloan, Haley et al 1..... dry
21-20- 6 Embry, Josey Oil 1..... 700
9-22-3e Arkekta, Magnolia Pet. 2..... 15
5-22-3e Altaffer, Magnolia Pet. 2..... 800
Wolfe, Magnolia Pet. 1..... dry
33-22-3e Miller, Marland Ref. 3..... 600
8-21- 6 Calcisaier, Career Oil 1..... 7
17-20- 7 Van Eman, Mann 1..... 235
25-20- 9 Townsite, Holbrook & Bartlett 1..... 10
8-20-10 Martin, Bell O. & G. 6..... 10
17-20-10 Martin, West et al 1..... 35

Wells completed..... 13
Production..... 3330
Dry..... 2
Gas..... 0
Gas production..... 0

PAYNE COUNTY

8-19- 5 Armour, Garr Oil 1..... 300
21-19- 6 Underwood, Magnolia Pet. 1.. 10
30-18- 6 Berryhill, Home Gas 1..... dry
34-19- 4 Main, Magnolia Pet. 3..... 30
Main, Magnolia Pet. 10..... 40

Wells completed..... 5
Production..... 370
Dry..... 1
Gas..... 0
Gas production..... 0

KAY COUNTY

8-27- 5 Geo. Bole 1..... 15
18-25-2e Walking Sky, Marland Ref. 3.. 130
16-27-1w Arnold, Kay & Kiowa Oil 1.... dry
26-26-1w Farless, Dance et al 1..... dry
15-27-1w Johnson, Otstot et al 2..... 15
36-25-1w Koppenbrink, Comar Oil 4.... dry
34-25-1w McDaniels, Bl'well O. & G. 7-A 35
14-28-4e Mathews, J. E. Miller et al 1 dry
16-27-1w Slocum, Manahan et al 1..... gas
15-25-2w Thomas, Marland Ref. 1 100
21-25-2w Turk, Carter Oil 1 350
Thomas, McCaskey & Wentz 1 dry
22-25-2w Siler, Twin State Oil 1 800
14-25-5w Midgley, Walters O. & G. 1.. dry
4-27- 5 Gypsy Oil 6 100
15-27- 5 Twin State Oil 15 60
35-25-1w Ogg, Comar Oil 2 ..... dry
Endicott, Comar Oil 4 ..... dry
16-27-1w Slocum, Manahan & Scott 2. gas
Slocum, Manahan & Scott 3. 75
4-27- 5 Laurel Oil & Gas 3 200
9-27- 5 Phillips Petroleum 1 100
34-25-1w McDaniel, Blackwell O. & G. 1-C 5754
Endicott, Pennok Oil 1-D....1000
Endicott, Pennok Oil 4-D....2000
C. C. Endicott, Comar O. 1-W.6500
McKee, McCaskey & Wentz 45.7300
35-25-1w L. Endicott, Comar Oil 1-W...5797

Wells completed 28
Production 26812
Dry 1
Gas 2
Gas production 30,000,000

GARFIELD-NOBLE COUNTIES

2-24-1w Gaume, Comar Oil 14-A 32
25-22- 4 Windler, Sinclair O. & G. 12 50
2-24- 1w Gaume, Comar Oil 15-A..... 70
Blubaugh, Comar Oil C-15A.. 60
36-22-4w Heim, C. E. Knox 3 ..... gas
19-22-3w Crews, Crews Heirs O. & G. 15 50
19-25-5w Reynolds, Hutchinson et al 1.. dry
30-22-3w Campbell, Sinclair O. & G. 17 30
25-22-4w Windler, Sinclair O. & G. 14.. 50
Hoz, Sinclair O. & G. 19..... 150
2-24-1w Blubaugh, Comar Oil C-5B.. 30
Shawver, Gypsy Oil 81 4700

Wells completed 13
Production 5213
Dry 1
Gas 1
Gas production 8,000,000

CARTER COUNTY

22-2s-3w Laymen, Wirt Franklin 1..... 350
5-3s-2w Fee, Wirt Franklin 2 60
6-3s-2w Palmer, Patsy Oil 1 50
Palmer, Patsy Oil 7 100
29-5s-1e Baptiste, Amerada Pet. 2 25
34-5s-1e Butler, Amerada Pet. 2 ..... dry
32-2s-2w Moyer, Healdton Pet. 1 50

5-3s-2w Dickerson, Schermerhorn 1-B...80
6-3s-2w Ponder, Acco Pet. 1 ..... dry
21-3s-2w Laymen, Magnolia Pet. 4 ..... gas
Town lot, Wirt Franklin 2.... dry
Cruce, Skelly Oil 1 196
Davis, C. R. Smith 1 25
24-3s-1w Fulsom, Cameron Refining 1.. 145
8-3s-2w Bledsoe, Schermerhorn 1..... 85
21-4s-2w Ward, Gypsy Oil 11 10
33-1s-3w Hart, Magnolia Pet. 1 40
31-3s-2w Palmer, Patsy Oil 8 40
21-4s-2w Noble, Carter Oil 46 40
Horton, Magnolia Pet. 12-A.. dry
22-4s-2w Noble, Carter Oil 39 40
21-4s-2w Noble, Carter Oil 14 250
Dillard, Wolverine Oil 2 18
22-4s-2w Dillard, Westheimer & Daube 5 50
5-3s-2w Cobb, Merrick et al 1-A..... 130
8-3s-2w Ledbetter, Schermerhorn Oil 1 60
27-3s-2w McClure, Johnson et al 4..... 45
20-3s-2w Morris, Sinclair and Gypsy 1 gas
16-4s-2w Ward, Carter Oil 14 15

Wells completed 29
Production 1683
Dry 4
Gas 2
Gas production.....7,500,000

STEPHENS-COTTON COUNTIES

25-1s-3w Ketchum, Humble O. & R. 3 dry
11-1s-5w Simpson, Hawks et al 2..... 20
25-1s-5w Harris, Magnolia Pet. 9..... 15
19-1s-5w Payne, Magnolia Pet. 1..... dry
18-1s-5w Johnson, Calhoma Oil 4 ..... gas
1-2s-5w Dickens, Midget Oil 10..... abd
1-2s-5w Dillard, Magnolia Pet. 20 10
Dillard, Magnolia Pet. 21..... 6
16-1s-5w Frensley, Skelly Oil 24 8

Wells completed 9
Production 69
Dry 3
Gas 1
Gas production 1,500,000

MISCELLANEOUS OKLAHOMA

Beckham County—
14-10-24w Green, Bolllian 1 ..... dry
35- 9-25w Gibson, Grimes et al 1 ..... dry

Lincoln County—
1-14- 6 Zollers, Roxana Pet. 5 965
13-14- 6 Lewis, Amerada Pet. 3 725
Lewis, Amerada Pet. 6 1400
Brace, Roxana Pet. 2 100
1-14- 6 Zollers, Roxana Pet. 7 300
13-14- 6 Townsite, Union Pet. & Sup. 1 400
Townsite, Union Pet. & Sup. 3 440

Pittsburg County—
29- 6-13 Townsend, Richardson 1 .... dry

Pontotoc County—
34-5n-6e Stri[illegible], Bowles & Smith 1.. 50

Garvin County—
8-1n-3w Davis, T. P. C. & O. 3..... 65

Kiowa County—
3- 7-17w Unknown, Aubyme Oil 1 ... gas

Grady County—
25-5n-8w McLaugherty, Stagner 2 ... gas
26-5n-8w McCaugherty, Carter Oil 4.. gas

Jefferson County—
33-4s-5w Seay, Mambro Oil 3..... 50
5-5s-5w Seay, Texas Co. 1 ..... dry

Logan County—
9-15-2w Wyatt, Mulhall O. & G. 1.. dry

Bryan County—
32-7s-8e Ramsey, Baillau et al 1..... abd

Marshall County—
15-6s-7e Burney, Alexander & Ellis 1 abd

Caddo County—
11-5n-9w Hedland, Briscoe & Hall 3.. 150
Hedland, English Drilling 3 325

Wells completed 22
Production 4970
Dry 7
Gas 3
Gas production 27,500,000

OSAGE COUNTY

Rigs

30-29- 9 Winona Oil 2.
23-24- 8 Tidal Osage Oil 7.
24-24- 9 Tidal Osage Oil 13.
26-24- 9 Gazaway, Marland Oil 9.
Tidal Osage 3.
31-25- 8 Mid-Kansas Oil & Gas 3.
27-25- 8 Atlantic Oil Producing 5.
29-25- 8 Texas Co. 9.
1-22- 9 Atlantic Oil Producing 5-A.
13-23- 8 Twin State Oil 6.
29-23- 8 Marland Oil 4.
17-29- 6 Phillips Pet. 5.
18-27- 6 Phillips Pet. 5, 6, 7.
Texas Co. 5, 6, 7.
35-22- 7 Gypsy Oil 10, 11.
1-26- 5 J. D. Simons, 7-13-14.
11-27- 5 Phillips Pet. 10, 14.
14-27- 5 Phillips Pet. 7, 10, 14, 16.
16-27- 5 Gypsy Oil 3.
26-27- 5 Phillips-Skelly 7.
13-25- 5 Midland Oil 1.

Wells Drilling

30-25-12 I. T. I. Oil 31.
36-25-12 H. V. Foster 3.
20-20-11 Evidence Oil 76.
6-26-10 Louis Friedman 1.
3-26-11 Knupp Oil 1.
17-27-11 Price Oil 1.
1-26-11 Robinson et al 5.
6-26-11 Prince et al 1.
36-26- 8 Seamans Oil 1.
Petroleum Drilling 1.
23-24- 8 Mutual Oil 8.
Foster & Davis 36.
10-24- 9 Marland Oil 1.
19-25- 8 Oliphant et al 1.
31-25- 8 Mid-Kansas O. & G. 2.
27-25- 8 E. B. Lawson 7.
23-25- 8 E. B. Lawson 9, 10.
Gypsy Oil 1.
I. T. I. Oil 295.
29-25- 8 Texas Co. 7, 8.
32-25- 8 Marland Oil 2.
34-25- 8 Marland Oil 1.
Mid-Kansas Oil & Gas 1.
19-25- 8 New England O. & P. L. 10.
29-25- 8 Thompson et al 3.
2-25- 8 Superior Oil 3, 4.
12-25- 8 Twin State Oil 7.
26-26- 8 Marland Oil 1, 2, 11-A, 13, 14
Red Bank Oil 4, 5.
21-22- 8 Beacon Oil 1, 2.
1-21- 8 I. T. I. Oil 1.
16-26- 6 Carter Oil 14, 15, 16, 10, 11.
17-26- 6 Cosden Oil & Gas 5.
30-27-12 A. M. Landon 1.
17-27- 6 Peters Pet. 2.
18-27- 6 Kewanee Oil & Gas 11, 113.
Phillips Pet. 1, 2, 3, 4.
Texas Co. 1, 2, 3, 4.
20-27- 6 Phillips Petroleum 5.
31-25- 7 Vickers and others 1.
11-27- 5 Phillips Pet. 16, 1, 13, 16.
Carter Oil 1, 2, 3, 4, 5, 6, 7, 8, 9, 10
13-27- 5 Carter Oil 1, 2, 3, 4, 1, 2, 3, 4, 5, 6, 7, 8, 5, 6, 7, 8.
14-27- 5 Cosden Oil & Gas 11.
Phillips Pet. 2, 3, 4, 5, 6, 8, 9, 13.
26-27- 5 Phillips-Skelly 12, 15.
Skelly Oil 4.
12-24- 4 Douglas Oil 1.
11-21- 9 Devonian Oil 1.
23-21-10 Titus et al 3.
23-21-10 Markham et al 10.
9-21-13 J. C. Stine et al 5.
6-20-10 H. G. Gwinnup, 1.
5-20-11 Pioneer Oil 3.
21-20-11 Sand Springs Home 1.
5-20-12 Barnsdall Oil 10.
29-20-12 Shaffer O. & R. 1.

Shut Down

28-29-11 Craig & Campbell 2, 3.
34-29-11 I. T. I. Oil 1.
10-27-10 Owen Osage Oil 285.
19-28- 9 Wiser Oil 1.
20-29- 9 Winona Oil 4.
28-24- 8 Osage O. & R. 1.
23-24- 9 Foster & Norwood 43.
25-24- 9 Winona Oil 2.
30-24- 9 Simons et al 1.
10-24- 9 Henderson & Holden 4.
28-25- 8 E. B. Lawson 8.
3-23- 8 Independent O. & G. 1, 2.
12-23- 8 Mid-Kansas O. & G. 5.
29-23- 8 Red Bank Oil 5.
9-21- 9 McKinney et al 4.
3-26- 6 Comar Oil 4.
18-27- 6 Kewanee O. & G. 12.
19-27- 6 Phillips-Skelly 13.
14-27- 5 Phillips Petroleum 1.
30-25-12 Beacon Oil 3.
5-24-11 Maxwell 5.
6-21-11 C. W. Titus et al 7.
Rigs, 32; wells drilling, 136; total, 168.

TULSA COUNTY

Rigs

22-19-10 Ragen, Jones & Barton 1.
5-19-12 Grayson, Echo Oil 4.
5-19-12 Town lot, H. C. Wilson 1.
7-19-12 Berryhill, Thompson & Black 3.
9-18-12 Bruner, Pouder & Pomeroy 6.
8-16-12 Town lot, Anthony et al 1.
8-16-12 Town lot, Daley Bros. & Riverland Co. 1.
8-16-12 Town lot, Henry & Avers 1.
8-16-12 Maxwell, Riverland Co. 8, 9, 10.
8-16-12 Block 26, Tidal Oil 1.
9-16-12 Poweoka, Minnehoma Oil et al 6.
17-16-12 Maxwell, D. Fox & Irelan 4.
3-16-12 Whetstone, S. W. Anthony 2.

Wells Drilling

21-21-14 Unknown, Ferris & Ballier 1.
13-19-10 Cowans, Darby Pet. 1.
4-19-12 Childers, Graham Bros. 1-A.
5-19-12 Grayson, Echo Oil 7.
6-19-12 Bruner, Sand Spring Home 5, 6.
8-19-12 Yargee, Morgan & Hancock 2.
8-19-12 Lot 6, Block 12, Caldwell & Sons 1.
8-19-12 Harrison, Terwilliger 3.
29-19-12 Postoak, Hendricks et al 1-A.
29-19-12 Hawkins, Brooks Drg. Co. 1-A.
30-19-12 Roberts, Eppler et al 1.
33-19-12 Scott, Munn Bros. 1-A.
23-18-14 Bowles, Turman Oil 2.
25-17-12 Vowell, Murphy et al 1-A.
1-17-14 SW quarter, Frates Oil 1.
8-16-12 Block 25, Troy Bowen 1.
8-16-12 Block 7, Bradstreet et al 1.
8-16-12 Block 36, Calvin & Belt 1.
8-16-12 Block 36, L. P. Gowland 1.
8-16-12 Block 29, Lebow et al 1.
8-16-12 Block 24, Noble Oil & Gas 1.
8-16-12 Block 13, Noble Oil & Gas 1.
8-16-12 Block 25, Noble Oil & Gas 1.
8-16-12 Block 23, Harris & O'Hare 1.
8-16-12 Block 11, Sheldon Oil & Gas 1.
8-16-12 Block 23, West & Hancock 1.
9-16-12 Muskogee, Thompson & Black 1.
17-16-12 Taylor, R. V. Hartman et al 1.
24-16-12 Smith, Ted Savoy et al 2.
35-16-12 Stevens, Peer Oil 1.
25-16-14 Roberts, White Star Oil 1.

Shut Down

1-19-10 Gooden, Swoveland et al 2.
2-19-10 Gray, W. W. Harter 1.
7-19-10 Burnett, Eastern Oil 1.
35-19-11 Insche, Wood et al 1-A.
4-19-12 Childers, F. B. Jackson 1.
4-19-12 Childers, Enfisco Oil 1.
8-19-12 Block 1, Weston et al 1.
8-19-12 Thursday, Kisler & Ramsey 1.
8-19-12 Block 6, Stein et al 1.
8-19-12 Block 7, Lionberger & Mathews 1.
8-19-12 Block 1, McDonald et al 1-A.
20-19-12 Berry, Thornton et al 1-A.
13-19-13 Grayson, O. O. Owens 1-A.
14-19-13 Harrison, J. E. Huff et al 1.
18-19-14 Grayson, G. C. Snow 1.
23-18-14 Boles, Turman Oil 2.
24-17-14 Grayson, Center Oil 2.
30-17-14 Deprest, McCullough et al 1.
8-16-12 Block 12, Miller Brothers 1.
25-16-12 Stanley, Okla. Nat. Gas Co. 2.
32-16-12 Clayton, W. H. Smith et al 1.
34-16-12 Burnett, Southern States Oil 1.
Rigs, 15; wells drilling, 54; total, 69.

OKMULGEE COUNTY

Rigs

16-13-13 Sanger, Bunte et al 4.
25-14-12 Hightower, Mueller et al 1.
5-12-12 Sullivan, Colvin et al 2.
7-12-12 Timer, A. J. Morton 3.
3-15-11 Grayson, Jackson & Wise 3.
6-15-11 Wil, Sheridan Oil 1.
11-15-11 Adams, Cosden Oil & Gas 3.
29-15-11 Barnett, Kellough et al 1.
6-13-11 Unallotted, Jess Rebold 1.
22-13-11 Scott, Deterre et al 1.
9-14-11 Tiger, Wheeler et al 1.
16-15-14 Unallotted, Payne & West 1.
14-13-14 Scott, McGranahan 4.
22-14-14 Wright, Kewanee Oil & Gas 15.
8-14-15 Anderson, Powell 4.

Wells Drilling

5-15-12 Bell, Taylor et al 1.
32-15-13 Hood, Mid-Kansas Oil & Gas 1.
8-13-12 Morton, Logan & Wallace 5.
26-13-13 Freeman, Galbreath Drilling 3.
29-14-12 Welch, Henry and Amerada 1.
35-14-12 Narcome, McFarland 2.
11-14-13 Snakeye, Kessler et al 3.
5-11-12 Hawkins, Moffitt & Slick 3.
7-11-12 Hawkins, Moffitt & French 3.
8-11-12 Summers, Gillette & Kerr 2.
18-11-12 Fish, Phillips Pet. 1.
6-12-12 Mitchell, Gladys Belle Oil 5.
20-13-13 Henry, Southern States Oil 1.
3-15-11 Unallotted, Noble Oil & Gas 1.
26-15-11 Hill, Rickow 2.
21-13-11 Harrison, Berry Pet. 1.
25-13-11 Tobler, Prairie Oil & Gas 6.
32-13-11 Thomas, Charles Brock 9.
15-13-14 Scott, Utah Oil 13.
22-13-14 Fox, Curtis & Aiken 7.
16-14-14 Colbert, O. P. & R. 5.
23-14-14 Corbray, Claud Smith 1.
28-14-14 Andy, Stein et al 1.
30-14-14 Thomas, W. B. Pine 1.
36-14-14 Lewis, Enterprise Oil 3.

Shut Down

14-15-12 Shepherd, Frazier et al 1.
26-15-13 Sugar, Ballentine et al 1.
28-15-13 Brown, Shelton et al 2.
3-13-12 Shelton, King & Jackson 6.
4-11-12 Hawkins, Henrietta Oil & Gas 5.
9-11-12 Hawkins, Moffitt & Slick 2.
27-12-12 Wolfe, Vanderwide et al 1.
12-15-11 Stephens, Pollyanna Oil 6.
9-15-14 Corbray, H. W. Lampton 2.
21-15-14 Osborne, J. A. Swindler 2.
13-13-14 Barnett, Iron Mountain Oil 6.
23-13-14 Scott, Luck Scott Oil 10.
7-13-15 Freeman, Lambert Oil & Gas 6.
Freeman, Haslett 3.
13-13-15 McGilbra, J. S. McCutcheon 1.
32-14-14 Hardridge, Jordan & Ashley 2.
29-14-15 Carter, Bonnert et al 2.
14-15-11 Grayson, Sheridan Oil 4.
16-15-11 Johnson, Waite Phillips 1.
17-15-11 Carolina, Shaffer Oil & Ref. 1.
14-13-11 Johnson, Gibson et al 2.
Montgomery, Twin State Oil 2.
16-13-11 Dice, Josey Oil 1.
23-13-11 Morgan, Stephens Oil & Gas 3.
26-13-11 Murrell, Ice et al 2.
32-13-11 Thomas, Denver P. & R. 4.
16-14-11 Lunsford, Clarion Oil 1.
31-14-11 Tiger, George Witman 1.
Rigs, 15; wells drilling, 52; total, 67.

OKFUSKEE, HUGHES AND SEMINOLE COUNTIES

Rigs

7- 9- 8 Hall, Holm et al 1.
9- 9- 8 Grayson, Kingwood Oil 1.
24- 9- 8 Simon, Kingwood Oil et al 1.
3- 9- 9 Alexander, Cosden Oil & Gas 5.
17- 9- 9 Browning, Margay Oil 6, 7.
20- 9- 9 Simon, Minnehoma Oil 1.
3-10- 8 Yahola, Gypsy Oil 1.
4-10- 8 Dunn, Central National Oil 2.
Dunn, Empire Gas & Fuel 1.
8-10- 8 Repogle, Gypsy Oil 1.
9-10- 8 Bruner, Pure Oil 6, 7, 8.
Bruner, Gypsy Oil 1, 2, 3, 4.
Hill, Sinclair O. & G. 2, 3, 4.
Starr, Carter Oil 1-A, 2, 3, 4.
Bunner, Carter Oil et al 3, 4, 5, 6.
Bunner, Sinclair O. & G. 2, 3, 4, 5, 6.
Hill, Carter Oil 2, 3, 1, 2.
Starr, Amerada Pet. 1.
10-10- 8 Brown, Henry Greis 4.
Berryhill, Sinclair Oil & Gas 2, 3, 4.
Little Prairie Oil & Gas 1.
Brown, Carter Oil 3.
Little, McMann O. & G. 2, 3, 4.
Brown, Roxana Pet. 6, 7, 8.
Butler, Roxana Pet. 1.
Berryman, Roxana Pet. 2.
Berryhill, Roxana Pet. 2, 3.
14-10- 8 King, Roxana Pet. 1.
15-10- 8 Yahola, Cosden Oil & Gas 4, 5.
Tiger, Cosden Oil & Gas 3, 4.
Harjo, Cosden Oil & Gas 1, 2.
Tiger, Roxana Pet. 2.
Harjo, Houston 1.
16-10- 8 Baker, McMann Oil & Gas 3.
Roberts, Carter Oil 4.
Bruner, Gypsy Oil 7.
21-10- 8 Harjo, Tidal Osage Oil 8.
22-10- 8 Yahola, Cosden O. & G. 2, 1-L, 2-L.
Yahola, Berry Pet. 4.
5- 7- 8 Foster, Dixie Oil 1.
1- 8- 8 Manley, Sinclair Oil & Gas 1.
10- 8- 8 Baker, McMann Oil & Gas 4.
29- 8- 8 Walker, Magnolia Pet. 2.
30- 8- 8 Micco, Gardner Pet. 1.
31- 8- 8 Casey, Boggs et al 5.
31- 8- 8 Sampson, W. R. Ramsey 1.
Amos, W. R. Ramsey 1.
Bowlegs, W. R. Ramsey 1.
Saladin, Prairie O. & G. 1.
32- 8- 8 Perryman, Shaffer O. & R. 3, 4.
Tiger, Magnolia Pet. 2, 3.
36-12-10 Fisher, C. L. McMahon 1.
27-11- 8 Amos, Burk & Greis 1-A.
19-11-10 Grayson, Robinson et al 1.
33-11-11 Myers, Webster et al 5.
4-11-11 Cully, Anglo-Texas Oil 1.

Wells Drilling

18- 8-10 Irvine, Dixie Oil 1.
3- 9- 9 Davis, Kingwood Oil 5.
Grayson, Slick 1-A.
Alexander, Cosden Oil & Gas 6.
4- 9- 9 Alexander, Papoose Oil 10.
Simon, Atlantic Oil Producing 2.
Tiger, Transcontinental Oil 3, 4, 5.
4- 9- 9 Tiger, Transcontinental Oil 2, 4, 6.
Tiger, Foster Oil 2.
Carter, Skelly Oil 1.
Ogle, Foster Oil 1, 3.
Carter, Gibson et al 2, 3.
8- 9- 9 Brown, White Eagle O. & R. 1.
17- 9- 9 Brown, H. F. Wilcox O. & G. 1, 3.
Brown, Margay Oil 1.
Brown, Roxana Pet. 1, 2.
18- 9- 9 Brown, Arkansas Fuel Oil 3.
Brown, Magnolia Pet. 2.
22- 9- 9 Manley, Josey Oil 1.
4-10- 8 Dunn, Central National Oil 1.
Fixico, Laurel Oil & Gas 1.
9-10- 8 Hill, Sinclair Oil & Gas 1.
Bruner, Pure Oil 1, 2.
Dunner, Carter et al 2.
Willis, Sinclair Oil & Gas 1.
10-10- 8 Brown, Henry Greis 2, 3.
Little, Shaffer O. & R. 1.
Berryhill, Sinclair Oil & Gas 1.
Little, Carter Oil 1.
Brown, Carter Oil 1.
Brown, Roxana Pet. 3, 4, 5.
Berryhill, Roxana Pet. 1.
14-10- 8 King, Tidal Osage Oil 1.
15-10- 8 Bruner, Gypsy Oil 3.
Stidham, Gypsy Oil 4.
Willis, Gypsy Oil 1, 3, 4.
Bruner, Wilcox O. & G. 2, 3, 5, 7, 8.
Bruner, Carter Oil 3, 4.
Wills, Cosden Oil & Gas 3, 4.
Tiger, Cosden Oil & Gas 2.
Alexander, Mid-Kansas O. & G. 3, 4.
Tiger, Waite Phillips 1.
Tiger, Snowden & McSweeney et al 1, 2.
16-10- 8 Bruner, Amerada Pet. 2, 6, 7, 8.
Proctor, Waite Phillips 1.
Baker, Superior Oil 2, 3, 4, 5, 6.
Baker, McMann Oil 1, 2.
Roberts, Carter Oil 2, 3.
Bruner, Gypsy Oil 3, 6.
Stidham, Hoffer Oil 1, 2, 3, 4.
Proctor, Livingston et al 2, 3, 4, 5, 7, 8.
17-10- 8 Bruner, Tidal Osage Oil 1.
21-10- 8 Harjo, Tidal Osage Oil 3, 4.
Harjo, Independent O. & G. 3.
22-10- 8 Yahola, Carter Oil 1.
King, Shaffer O. & R. 5, 6, 7, 8.
King, Cosden O. & G. 1, 2.
Yahola, Cosden O. & G. 1-T.
Yahola, Berry Pet. 2, 3.
35-10- 8 Conrad, Independent O. & G. et al 1.
33-10- 9 Barnett, Midwest & Gulf 1-P.
35-10- 9 Sands, T. B. Slick 1.
4- 7- 8 Long, Prairie Oil & Gas 2-D.
5- 7- 9 Miller, Fuhrman et al 1.
12- 8- 8 Culler, Roxana Pet. 1.
10- 8- 8 Townsite, W. R. Ramsey 1.
29- 8- 8 Brown, Homaokla Oil 1.
Walker, Homaokla Oil 3.
29- 8- 8 Joseph, Amerada Pet. 2.
14-12- 8 Billy, Western States Oil 1.
22-12- 9 Yarhola, Sinclair Oil & Gas 1.
25-12- 9 Callahan, Wangerine et al 1.
36-12- 9 Pittman, Henry Oil 1.
32-12-10 Harjo, Bingman Bros. et al 1.
25-12-10 Berryhill, Atlantic Refining & Blakeley 1.
28-12-10 Hivens, Independent O. & G. 2.
36-12-10 Gray, Atlantic, Blakeley and Carter 1.
33-12-11 McCoy, Josey Oil 3.
26-11- 7 Kidd, C. J. Wrightsman et al 1.
17-11-10 Dunson, Black & Turman Oil 1.
29- 8- 8 Perryman, Magnolia Pet. 1.
Walker, Magnolia Pet. 1.
Douglas, Magnolia Pet. 1.
Walker, Dixie Oil 4.
30- 8- 8 Johnson, Magnolia Pet. 1.
Johnson, W. R. Ramsey 1.
31- 8- 8 Casey, Boggs et al 3, 4.
Casey, W. R. Ramsey 1.
Casey, Producers & Refiners 1.
32- 8- 8 Dixie Oil 3-B.
Grayson, Sinclair O. & G. 1.
Perryman, Shaffer O. & R. 1, 2.
33- 8- 8 Foster, Sinclair O. & G. 3-A.
32- 8- 8 Barker, Dixie Oil 2-E.
33- 8- 8 Long, Lewis & Clark 2, 3.
Barker, Magnolia Pet. 5.
35- 8- 8 Jefferson, Johnson & Ash 1.
12- 5- 9 Cardin, Douglas Oil 1.
6- 6- 8 Reed, Garland Oil 1.
20- 6- 7 Daisy, McDougal et al 1.
29-11-14 McIntosh, Grundish et al 1.
3-11-11 Hawkins, Tidal Oil 2.
25-11-11 Barnett, Lyons Pet. 2.

Shut Down

8-12-10 Yarhola, T. T. Blakeley 1.
23-12-10 Harjo, Blakeley et al 1.
24-12-10 Fisher, W. R. Snyder et al 1.
28-12-10 Johnson, Blakeley et al 1.
3-12-11 Grayson, Parshall O. & G. 2.
33-12-11 McCoy, Josey Oil 1.
33-12-11 Grayson, Anglo-Texas Oil 1.
35-12-11 Robinson, Aztec Tribes Oil 1.
25-11- 9 Hill, Robinson et al 1.
4- 5-11 Sand, E. Mathews 1.
17- 9- 9 Brown, H. F. Wilcox O. & G. 2.
17- 9- 9 Brown, Gilcrease Oil 3.
Brown, Margay Oil 2, 5.
18- 9- 9 Brown, Arkansas Fuel Oil 2.
Brown, Gladys Belle Oil 1.
Brown, Cosden O. & G. 1.
20- 9- 9 Simons, Gilcrease Oil 2.
9-10- 8 Bruner, Pure Oil 3, 4, 5.
15-10- 8 Tiger, Snowden et al 3, 4.
Tiger, Roxana Pet. 1.
16-10- 8 Proctor, Livingston et al 6.
22-10- 8 Yahola, Carter Oil 3.
36- 5-11 Rogers, Kimberly Oil 1.
37- 7-10 Duncan, Arkansas Fuel Oil 1.
22-12- 9 Yahola, Sinclair O. & G. 1.
30-11-10 Grayson, Shaffer and Independent Oil & Gas 1.
25-11-11 Barnett, Gypsy Oil 3.
27-11-11 Harjo, H. F. Clark et al 1.
30-11-11 Holmes, Moffett et al 4.
34-11-11 Barnett, Oklanana Oil 2-A.
Rigs, 90; wells drilling, 182; total, 272.

MUSKOGEE, WAGONER AND M'INTOSH COUNTIES

Rigs

35-18-15 Edwards, G. H. Kime 1.
26-18-16 Burgess, Darby Pet. 2.
29-18-17 Trent, D. J. Marshall 1.
29-17-17 Lewis, W. R. Wright 1.
27-16-17 Morrison, Goble & Capps 1.
27-14-15 Durant, E. C. Robinson 3.
20-13-18 Berryhill, H. L. Holley 1.

Wells Drilling

26-18-16 Fulotka, Rhoades et al 1.
2-12-16 Wineblood, Montague O. & G. 1.
10-18-17 Watson, W. C. Buckles 1.
36-18-17 Green, Betz and others 1.
35-18-19 Talbert, Aggie & Kirker 1.
11-17-16 Birney, Livingston O. & G. 3.
12-17-16 Birney, Young et al 1.
28-17-17 Marshall, Harris & Hays Oil 1.
33-16-16 McDaniel, Hillside Oil 1.
24-16-16 Marshall, W. N. Loor 1.
20-16-17 Marshall, Harris-Hays Oil Co. 1.
30-16-17 Bennett, Ford et al 1.
6-13-16 Callahan, McCutcheon et al 2.
16-13-16 Collins, J. A. Shepherd 5.

Shut Down

20-18-16 Hawkins, Cumberland Pet. 1.
21-18-16 Tiger, B. B. Wheeler 1.
22-18-16 Stanford, F. D. Carver et al 1.
27-18-16 Stewart, S. D. Kirby et al 1.
21-18-17 Hasner, Sun Ray Oil 2.
29-18-17 Murrell, D. J. Marshall 1.
29-18-17 Trent, D. J. Marshall 1.
18-17-15 Pike, Bankers Drilling Co. 1.
13-17-16 Atkins, Castleman 1.
15-17-16 Allen, Alf Tillman 1.
1-17-17 Taylor, Metzgar 4.
3-16-16 Unallotted, Porter & Spencer 1.
9-16-16 Crossley, H. E. Jones 1.
27-15-15 Charles, Turin Oil 4.
2-15-16 Perryman, A. B. Ice 2.
7-15-16 Smith, Straughn et al 2.
25-16-16 Perryman, Curridan et al 1.
25-16-16 Conrad, Jack Somers 2.
17-15-17 Manuel, H. E. Williams et al 2.
32-15-18 Swine, J. T. Jolly 4.
22-15-19 Rogers, E. C. Lentz 1.
32-14-15 Carter, Bandy et al 2.

29-14-16 Brown, Valentine et al 1-A.
30-14-16 Smith, Vogler & Lightner 1.
35-14-16 Buster, J. A. Dewill 1.
9-14-19 Cumpton, J. W. Hale 1.
6-13-16 Callahan, McCutcheon 2.
20-12-14 Tucker, Casper et al 1.
3-12-15 Brady, Beggs Oil & Gas 2.
24-12-19 Unnamed, Fike & Clapp 1.
Rigs, 7; wells drilling, 44; total, 51.

CREEK COUNTY

Rigs

32-17- 8 Washington, Page Bros. 2.
17-15- 8 Yahola, Pure Oil 15.
Roberts, Eastern Oil 5.
Wilson, Roxana Pet. 11.
Wilson, Eastern Oil 3.
26-15- 8 Norchubby, Bu-Vi-Bar Pet. 2.
34-15- 8 Yahola, C. G. Tibbons 6.
33-16- 8 Larmia, Wolfe Oil 1.
6-16- 9 Barnett, T. P. C. & O. 1.
9-16- 9 Bethel, Gypsy Oil 1.
10-16- 9 Fields, Wolfe Oil 2.
15-16- 9 Barnes, Carter Oil 2.
20-16- 9 Barnett, Dickinson 1.
13-14- 8 Bearhead, Billingslea et al 1.
14-14- 8 Bearhead, Margay Oil 2.
24-14- 8 Doyle, Kaufman et al 1.
26- 24- 8 Johnson, Tibbons 10.
30-14- 8 Kirnal, P. & R. 2.
7-14- 7 Caser, Twin State Oil 1.
Caser, Prairie Oil & Gas 1.
Unallotted, Pure Oil 1.
4-14-10 Unallotted, Wilson 1.
32-14-10 Mitchell, Cosden Oil & Gas 2.
14-19- 8 Lewis, Kiskadden 2.
30-18-10 Smith, Sapulpa Fuel Co. 1.

Wells Drilling

14-17- 8 Johnson, Atlantic Oil Producing 1.
Johnson, Aztec Oil 1.
32-17- 8 Washington, Clean Pet. 5.
Washington, O. P. & R. 2.
8-15- 8 2½ acres, Producers & Refiners 1
Wildcat, Gypsy Oil 3.
15-15- 8 Wilson, Gypsy Oil 1.
16-15- 8 Eastern Oil 2.
17-15- 8 Yahola, Pure Oil 14.
Beck, Skelly Oil 1.
Roberts, Eastern Oil 4, 6.
Vasser, Prairie Oil & Gas 3.
30-15- 8 Little Fay Oil 3.
5-15- 9 Buckner, Texas Co. 1.
7-15- 9 Jefferson, Roland Oil 1.
17-15- 9 Wolfe, Turman Oil 1.
21-15- 9 Davis, Mount 1.
21-15- 9 Unallotted, Pure Oil 1.
Unallotted, Galer et al 1.
30-15- 9 Fields, Billingslea et al 2.
6-16- 8 Wills, Olman Pet. 2.
9-16- 9 Childers, Jomack Oil 5.
4-14-10 Unallotted, Evans et al 1.
Wright, Skelly Oil 6.
12-19- 8 Grayson, J. B. Grieves 2.
30-19- 9 Cole, Waite Phillips Co. 1.
25-16- 9 Harner, U. S. Cities 2.
12-14- 8 Unallotted, Tibbons 1.
17-14- 8 Har-Lar-Cher, Shaffer O. & R. 1.
36-14- 8 Beaver, Independent Oil & Gas 1.
18-14- 9 Sneed, Tibbons 2.
29-14- 9 Unallotted, Cosden Oil & Gas 1.
4-18- 7 Connors, Magnolia Pet. 3.
6-14- 7 Coyarka, Roxana Pet. 2, 3.
Coyarka, Union Pet. & Supply 1.
7-14- 7 Jack, Wood & Farren 1, 3, 4.
Jack, Waite Phillips 1, 4.
Jack, Atlantic et al 1, 2.
Lewis, Amerada Pet. 7, 9, 10, 11.
Jack, Roxana Pet. 2.
Lewis, C. P. Noble 1.
16-14- 7 Clinton, Gladys Belle Oil 1.
1-15-10 Simmons, Barbara Oil 2.
Asbury, H. C. Wilson 1.
13-15-10 Gardner, Enfisco Oil 3.
22-15-10 Clark, Wolverine Oil 5.
27-15-10 Harry, Texas Co. 1.
33-15-10 Post, Wilcox Oil & Gas 7.
4-14-10 Wright, Phillips Pet. 2.
8-14-10 Tiger, Damar Oil et al 1.
Johnson, Hall et al 1.
21-14-10 Scott, Kistler et al 1.
31-14-10 Barnett, Darby et al 3.
32-14-10 Fixico, Empire Gas & Fuel 1.
34-14-10 Flanagan, Cosden Oil & Gas 1.
29-18-10 Hearny, H. U. Bartlett 2.

Shut Down

26-19- 8 Foster, Kiskadden 1.
30-19- 9 Jefferson, Bailey et al 2.
10-18-10 Casan, Skelly Oil Co. 1.
11-18-11 McKein, Jackson & Wise 1.
32-17- 8 Washington, Olean Pet. 2.
Washington, Page Bros. 1.
Artusse, Sartain Bros. 2.
6-17- 9 Malcona Pet. 1.
17-18- 9 West, Jarvis & Holm 2.
2-15- 8 Hencha, H. F. Wilcox O. & G. 10.
4-15- 9 Wisener, Phillips Pet. 4.
21-16- 8 Unallotted, H. C. Wilson 1.
22-16- 8 Sloan, Cortez Oil 6.
Knoll, Laurel O. & G. 6, 7.
29-16- 8 Hawkins, Lynch et al 1.
34-16- 8 Renfro, Kelly et al 1.
9-16- 9 Childers, Jomack Oil 3, 4.
16-16- 9 McNac, Sartain Bros. 5.
9-14- 8 Ablequah, Cohan et al 1.
11-14- 8 McDaniels, Billingslea et al 2.
29-14- 8 Robinson, Phillips Pet. 1.
30-14- 8 Cohen, Waite Phillips 1.
22-14- 9 Mays, West et al 2.
23-14- 9 Davis, George W. Davis 1.
24-14- 9 Penn, Phillips Pet. 1.
7-14- 7 Jack, Roxana Pet. 2, 3.
31-14-10 Scott, Independent O. & G. 2.
32-18-11 Drew, Crose et al 1.
Rigs, 25; wells drilling, 96; total, 121.

PAWNEE COUNTY

Rigs

10-22- 6 Unallotted, J. H. White 1.
16-20- 7 School land, Cosden Oil & Gas 1.
8-21- 6 Simmons, Wood & Farren 1.
Calclasier, Amerada Pet. 1.
26-21- 4 Schermerhorn, Indpendent O.&G. 1.
5-22-3e Altaffer, Magnolia Pet. 1.
Wolfe, Magnolia Pet. 2.
24-20- 8 Wasson, Southwestern Oil 7.
8-20-10 Bush, Shaffer & Mankin 5.

Wells Drilling

16-20- 7 School land, Cosden O. & G. 3.
15-20- 7 Horn, Prairie O. & G. 2, 3.
Manahan, Bailey et al 1.
17-20- 7 Van Eman, Reice et al 1.
18-20- 7 Butcher, Garland et al 1.
4-20- 5 Davis, Morgan et al 1.
1-20- 6 Peck, Josey Oil 1.
8-20- 6 Sharp, Magnolia Pet. 1.
16-20- 6 School land, Magnolia Pet. 1.
School land, Gim Glenn Oil 3.
17-20- 6 Goring, Watchorn O. & G. 1.
White, Watchorn O. & G. 4.
22-20- 6 Smith, Westerly Oil 4.
28-20- 6 Sallee, Davis et al 1.
26-22- 5 Unallotted, Acco Oil 1.
1-21- 5 Hill, C. J. Wrightsman 1.
4-22- 3e Ely, Magnolia Pet. 2.
Miller, Magnolia Pet. 5.
4-22-3e Sanders, Magnolia Pet. 3.
Arkekta, Magnolia Pet. 1.
32-23-3e Robedeaux, Magnolia Pet. 1.
33-23-3e Miller, Watchorn O. & G. 1, 5, 6, 8, 9.
17-20- 7 Pettit, T. E. Mann 1.

Shut Down

25-22- 6 Bell, Victor Oil 1.
4-20- 7 Unallotted, Vick Oil 1.
8-21- 7 Kinsley, Freeman 1.
21-21- 7 Hussey, Flight et al 1.
14-20- 9 Acely, W. W. Jones et al 1.
Rigs, 9; wells drilling, 33; total, 42.

PAYNE COUNTY

Rig

34-19- 4 Saunders, Twin State Oil 1.

Wells Drilling

21-19-1w Bahlinger, Ponca O. & G. 1.
35-19- 5 Strip, Home Gas 1.
36-19- 5 Ellis, Josey Oil 1.
Carp, Josey Oil 2.
6-19- 4 Dunn, T. B. Slick 1.
34-19- 4 Main, Magnolia Pet. 3, 10.
16-17- 4 School land, Flynn & Morgan. 1.
1-17- 5 Mines, O'Hern et al 1.
20-17- 5 Strong, Grimes et al 1.
23-18- 4 Unallotted, Mulberry Oil 2.
32-18- 4 Unallotted, Mulberry Oil 1.
23-17- 3 Unallotted, Willis O. & G. 1.
28-17- 3 Unallotted, Skelly Oil 1.
23-18- 3 Unallotted, Deep Rock 1.
17-19- 6 Spurgeon, Carter Oil 1.
17-19- 6 Douglas, Carter Oil 2.
23-18- 3 Deery, Deep Rock O. & R. 1.

Shut Down

18-18- 5 Meyers, Carter Oil 1.
30-18- 5 Cochran, Cassiday et al 6.
Cochran, Amerada Pet. 2.
2-20-2e Conley, Colorado Oil & Gas 1.
Rigs, 1; wells drilling, 22; total, 23.

KAY COUNTY

Rigs

3-27- 5 Phillips Pet. 2, 3.
8-27- 5 George Bole 6.
2-26-4e Baum, Schundler et al 1.
15-29-1w Brainbine, McComas et al 1.
16-27-1w Analu Oil 4.
18-27-1w Johnson, Una Lee Oil 1.
34-25-1w Beverlin, Comar Oil 4-W.
Endicott, Comar Oil 8-W.
Woods, Amerada Pet. 35, 36, 37.
McDaniels, Phillips Pet. 1.
McDaniels, Blackwell O. & G. 4-C.
35-25-1w Endicott, Comar Oil 2-W.
Stewart, Carter Oil 1.
23-27-3w Crouch, Blackwell O. & G. 2.

Wells Drilling

4-27- 5 Laurel O. & G. 4, 5.
Gypsy Oil 1.
9-28-4e Hardy, Douglas Oil 1.
7-27-2e Williams, Comar Oil 1.
27-27-3e Lewis, Marland Oil 1.
17-25-2e Mean Bear, Marland Oil 2.
19-25-2e Lease, Miller Bros. 1.
21-29-1w Duncan, Roxana Pet. 1.
4-27-1w Case, Harold Oil 1.
10-27-1w Crouch, Blackwell Oil & Gas 1.
16-27-1w Langbrey, National Union 2.
Slocum, Manahan et al 3.
Slocum, Ostot Dev. 1.
17-27-1w Massey, Carter Oil 1.
34-27-1w McKee, Wentz Oil 1, 18, 22, 29, 45, 46.
Beverlin, Comar Oil 1-W.
Endicott, Comar Oil 1-W, 2-W, 3-W, 4-W, 5-W, 6-W, 7-W.
Woods, Amerada Pet. 33, 34.
Endicott, Pennok Oil 1-D, 2-D, 3-D, 4-D, 5-D, 6-D, 8-D.
McDaniels, Blackwell O. & G. 1-C.
35-25-1w Endicott, Slick et al 2, 3-E, 4-E, 5-E, 6-E, 7-E, 8-E, 1-A.
Endicott, Comar Oil 1, 5-W, 7-W.
Ogg, Comar Oil 1-W.
8-26-2w Smith, Day Oil 1.
12-26-2w McCullough, Alcorn Oil 1.
26-26-2w North, Marland Oil 1.
14-27-3w Howell, Western States Oil 1.
22-27-3w Lane, Blackwell O. & G. 2.
Stewart, Western States Oil 4-W.
27-27-2w Lane, Western States Oil 1.
28-26-2w Carr, O'Kansas O. & G. 1.

Shut Down

4-27- 5 Roxana Pet. 7.
Laurel O. & G. 3.
Comar Oil 3.
11-28-1e Lowery, Oklahoma Northern Oil 1.
15-28-1e Trenary, Grand Island O. & G. 1.
3-27-1w Rohrs, Ostot Dev. 2.
21-27-1w Vandever, Alcorn Oil 1.
30-25-1w Frazier, Bailey et al 1.
33-25-1w Russell, Marland-Cosden 3-A.
35-25-1w Endicott, Comar Oil 4.
Ogg, Comar Oil 3.
14-25-1e Hale, Waldo et al 1.
Rigs, 17; wells drilling, 70; total, 87.

GARFIELD-NOBLE COUNTIES

Rigs

2-24-1w Blubaugh, Comar Oil C-7A.
3-24-1w Carmichael, Comar Oil 9-W.
25-23-1w Burnside, Jankowsky et al 1.
19-22-3w Crews estate, Crews Heirs O. & G. 16.
11-21-4w Boepple, Boepple et al 3.
19-22-3w Crews, Sinclair O. & G. 10, 14.
Kisner, Sinclair O. & G. 12.
13-22-4w Walker, Sinclair O. & G. 25.

Wells Drilling

12-21-3e Sayre, Ossenbeck et al 1.
27-21-3e Kinsley, Marland Oil 1.
2-24-1w Clark, Gypsy Oil 81, 82, 83, 84, 85.
Gaume, Comar Oil 1-W.
Blubaugh, Comar Oil 8-C, 23-B, C-5B, C-9.
3-24-1w Carmichael, Comar O. 4, 6-W, 11-W.
Ruzek, Blackwell O. & G. 4-C.
9-24-1w Gravel, Ponca City O. & G. 1.
11-24-1w Rence, Healdton O. & G. 2-A, 13-B.
McCutcheon, Comar Oil 1.
29-24-1w Case, Mid-Co Pet. 11-A.
21-23-1w Forman, Walters O. & G. 1.
30-21-1w Enright, Twin State Oil 1.
16-25-2w Smith, Marland Oil 1, 2.
Thomas, Alcorn Oil 1.
21-26-2w Turk, Carter Oil 2.
11-23-2w Wright, Tidal Oil 1.
15-23-2w Neal, Tidal Osage Oil 16.
31-22-3w McLean, Ima O. & G. 1.
19-20-5w Ray, Atlantic Oil Producing 1.
12-21-4w Schwer, Boepple et al 1.
22-21-4w Miller, Rosenthal et al 1.
25-22-4w Frickenschmidt, Sinclair O. & G. 10.
19-22-3w Kisner, Sinclair O. & G. 11.

Shut Down

14-24-2e Kemple, Ossenbeck et al 1.
20-24-2e Leclair, Ossenbeck et al 1.
2-24-1w Gaume, Comar Oil C-5A.
3-24-1w Carmichael, Comar Oil 18-B.
15-24-1w See, Comar, Oil 7-A, 15.
20-24-1w Rood, Eureka Oil 1.
32-20-1e Boyce, Nelson et al 1.
22-24-2w Curby, Wilkerson et al 1.
4-25-2w Bollinger, Smith Claire Drilling 1.
27-25-2w Simmons, W. E. Brown 1.
36-25-2w Davis, Emery et al 1.
1-22-2w White, Frank Kelly 1.
15-21-2w Sam, Bu-Vi-Bar Pet. 1.
25-22-4w Hotson, Empire G. & F. 19.
36-22-4w Imo O. & G. 1.
22-25-4w Vollman, Myers O. & G. 1.
20-22-4w Crane, Hollingworth et al 1.
3-22-5w Wengert, Martin et al 1.
25-20-4w McCullough, Danciger et al 1.
31-21-5w Champ, Summer O. & G. 1.
7-19-5w Hawkins, Charter Oak Oil 1.
6-23-6w Hess, Weir-Wood Oil 1.
26-23-7w Cox, Catharine Oil 1.
17-23-8w Dibley, Bullock et al 1.
Rigs, 8; wells drilling, 60; total, 68.

CARTER COUNTY

Rigs

23-2s-3w Jones, Twin State Oil 4.
8-3s-2w Ledbetter, Schermerhorn 2.
28-1s-3w Lennings, Timpleman et al 2.
Tussey, Tidal Oil 2.
31-2s-2w Bennett, Magnolia Pet. 4.
32-2s-2w Moyer, Healdton Pet. 6-B.
8-2s-2w Bledsoe, Coline Oil 1.
31-4s-2w Noble, Carter Oil 43.
Ward, Carter Oil 21, 22.
23-2s-3w Davis, C. R. Smith 2.
24-2s-3w Smith, Magnolia Pet. 9.
25-2s-3w Jefferson, Walter Newstadt 1.
27-2s-3w McClure, Johnson et al 4.
30-2s-2w Sparks, Skelly Oil 3.

Wells Drilling

19-1s-2w Morris, Groom et al 1.
10-1s-3w Gray, Magnolia Pet. 1.
18-1s-3w Hardin, Magnolia Pet. 1.
27-1s-3w Ott, Levant Oil 1.
28-1s-3w Jennings, Humble O. & R. 2.
Jennings, Templeman et al 1.
Tussy, Tidal Oil 1.
29-1s-3w Spears, Humble O. & R. 1.
33-1s-3w Tipton, Magnolia Pet. 1.
33-1s-3w Lusk, Humble O. & R. 1, 2.
34-1s-3w Miller, Heenan & Coe 1.
35-1s-3w Lyles, Magnolia Pet. 1.
30-2s-2w Sparks, Cotton Belt Pet. 7.
31-2s-2w Bennett, Magnolia Pet. 7.
32-2s-2w Burrow, Humble O. & R. 2.
5-2s-3w Laymen, W. Frankin 2.
23-2s-3w Laymen, Magnolia Pet. 2, 3. 1.
Taylor, Magnolia Pet. 7.
Williams, Magnolia Pet. 4.
26-2s-3w Fee, C. R. Smith 6.
35-2s-3w Brooks, Rockland Oil 6, 9, 10.
5-3s-2w Wirt Franklin 3.
Apple, Merrick et al 1.
9-4s-2w Lowery, Schermerhorn 1.
15-4s-2w Rexroat, Cotton Belt Pet. 11.
16-4s-2w Schellenberger, Magnolia Pet. 11.
Mullin, Carter Oil 12.
21-4s-2w Noble, Carter Oil 39, 46.
Horton, Magnolia Pet. 12-A.
22-4s-2w Dillard, Carter Oil 18.
Dillard, Westheimer 15, 16.
13-5s-3w Beay, Wickenhiser & Ross 1.
20-5s-1e Baptiste, Amerada Pet. 16.
Kirby, Amerada Pet. 1.
Baptiste, Amerada Pet. 4. r
29-5s-1e Baptiste, Amerada 3.
22-4s-2w Dillard, Wolverine 5, 33.
16-4s-1e Bratcher, Felmlee et al 1.
30-3s-1w Brown, Prairie Oil & Gas 1.
31-3s-1w Walton, Empire G. & F. 1.
23-2s-3w Jones, Fitzgerald 3.
23-2s-3w Davis, Fox Pet. 1.
24-2s-3w Fulsom, Humble O. & R. 1.
25-2s-3w Simpson, Mapolia Pet. 6.
Jefferson, Skelly Oil 2.
Jefferson, Atlantic O. & P. Co 2
Jefferson, Twin State Oil 4.
26-2s-3w Lowrey, Magnolia Pet. 5.
27-2s-3w Williams, Wirt Franklin 5.
33-2s-3w Lindersmith, Gypsy Oil 2.
18-2s-2w Pierce, Yore Oil 3.
19-2s-2w Dickerson, Hivick et al 1.
30-2s-2w Sparks, Cotton Belt Oil 7.
32-2s-2w Burrows, Humble O. & R. 2.

Shut Down

20-1s-3w Gove, Simpson et al 1.
29-1s-3w Spear, Humble O. & R. 1-B.
31-2s-2w Palmer, Patsy Oil 8.
27-2s-3w Fee, C. R. Smith 5.
McClure, Page Oil 4.
8-3s-2w Harrison, Noble O. & G. 1.
9-4s-2w Walker, Humble O. & R. 14.
21-4s-2w Noble, Skelly Oil 13.
22-4s-2w Dillard, Skelly Oil 16.
Dillard, Humble O. & R. 8, 9.
4-4s-3w Lowery, Pure Oil 3.
Johnson, Roxana Pet. 20.
Jones, Coline Oil 27-A.
9-4s-3w Franklin, Lawrence O. & G. 27.
6-3s-2w Palmer, Marcum et al 7, 10.
Pouder, Acco Oil 1.
4-3s-1w Williford, E. B. Lynn 1.
27-3s-2w Brown, Home Oil 1.
23-2s-3w Cruce, Humble O. & R. 2.
27-2s-3w Hefner, Magnolia 4.
Fee, C. R. Smith 5.
29-2s-1w Johnson, Oswego Oil 1.
28-1s-3w Jennings, Humble O. & R. 2.
Gregg, Humble O. & R. 1.
35-1s-3w Williams, Magnolia Pet. 1.
Rigs, 15; wells drilling, 90; total, 105.

STEPHENS-COTTON COUNTIES

Rigs

22-1s-8w Fisher & Brown 3.
14-1n-9w Adkins, Waldman & Schramm 1.
2-2s-5w Dillard, Magnolia Pet. 22.

Wells Drilling

3-1n-4w Graham, T. P. C. & O. 1.
23-1n-4w Edwards, Atlantic Oil Prod. 1.
6-2n-4w Simmons, Gant et al 1.
11-1n-5w Simpson, Hawk & Ware 3.
Watts, J. C. Shaffer 1.
4-1s-7w Ballard, Choptaw et al 1.
33-1n-8w Morgan, Coline et al 3.
20-1s-8w Bartley, Magnolia Pet. 8.
22-1s-8w Warner, C. & O. Drilling 1.
32-1s-8w Blaydes, Amerada Pet. 11.
34-1s-8w Nigh, McQueen et al 4.
36-1s-8w Branch, Clark et al 1.
30-1n-8w Funk, Magnolia Pet. 2.
33-1n-7w Sledge, Rymer & Bennett 1.
13-1n-5w Chism, Ketney et al 2.
18-5s-13w Day, Fisher et al 1.
22-5s-12w Lonewolf, Woods et al 1.
28-2s-13w Griffin, Carter et al 1.
22-2s-11w Ballard, National O. & D. Co. 2.
26-2s-11w Fox, Sherin-Arrington 3.
10-2s- 7w Selby, Gant Becker et al 1.
15-2s- 7w Tony, Magnolia Pet. 1.
17-2s- 7w McDaniel, Anderson Avant 3.
18-2s- 7w Bourne, Mid-Kansas O. & G. 5.
30-2s- 7w Enloe, Holbrook et al 1.
14-2s- 6w Norman, Magnolia Pet. 1.
2-2s- 5w March, Cosden O. & G. 6.
6-2s- 4w Ingram, Magnolia Pet. 1.
8-2s- 4w McDonald, Magnolia Pet. 5.
24-1s- 9w Armstrong, Best-of-All Oil Co. 4.
5-1s- 8w Hood, Gant et al 1.
33-1s- 8w Stephens, Magnolia Pet. 7.

Shut Down

10-2s- 6w Hardy, National Ref. 1.
27-1s-8w Rice, Grigsby et al 1.
33-1s- 8w Surber, McMan Oil 15.
3-1n- 7w Stitch, Atlantic O. P. Co. 1.
13-1n- 5w Shism, Ketney et al 1.
11-3s- 8w Davidson, Sour Star Oil 1.
4-3s- 5w Landon, Owl Oil Co. 15.
14-2s-11w Berendzen, Linson 3.
22-2s-10w Adams, Bilbro et al 1.
9-2s- 7w Patty, Anderson & Avant 1.
25-2s- 6w Bettes, Caddo-Ruffi Oil 1.
Rigs, 3; wells drilling, 43; total, 46.

MISCELLANEOUS

Rigs

Coal County—
1- 1-11 Nichols, G. F. Vaughn 1.
18-2n- 9 Hicks, Dillard 1.

Grady County—
31-10-8w Higgins, Hawkins & Young 1.
35- 5-8w McCann, Carter Oil 1.

Grant County—
8-26-5w Biggs, Jarvis et al 1.
17- 7-21w Wild, Norton & Neal 1.

Greer County—
4- 3-22w Unknown, Bozo & Terrell 1.

Kingfisher County—
17-19-5w Hank, Jens Marie Oil 1.

Lincoln County—
12-14- 6 Townsite, Union Pet. & Supply 6.
12-14- 6 Townsite, Square Deal Oil 1.

Logan County—
28-15-1w Ganough, Lambert et al 1.
33-18-3w Guier, Haley & Smith et al 1.
35-17-4w Lindsey, Casing Royalty 1.

Major County—
36-22-14w Lindsville, Texas Prod. 1.

Pontotoc County—
18- 4- 6 McClure, Bryan et al 1.
27- 4- 6 Perry, Pilgrim Pet. 1.

Roger Mills County—
10-16-21w Seaba, Kellogg et al 1.
33-13-21w Fields, Texas Oil Dev. 1.

Texas County—
4-1-12 Allison, Home Dev. Co. 2.

Wells Drilling and Shut Down
(Shut down wells indicated by *)

Alfalfa County—
23-24-11w Twin Bull, Armstrong et al 1*.
21-27-10w Watts, McGinnis & Ward et al 1*.

Beaver County—
33-5-28e Dewey, Gate Valley Oil 1*.
6-1 20e James, Empire 1*.
17-3-23 Unknown, Skaer 1*.

Beckham County—
15-10-22w Wilkerson, Phillips et al 1*.
16- 9-23w Montgomery, Magnolia Pet. 1*.
15- 9-23w Goldsmith, Sayre O. & G. 1*.
19- 8-21w Van Vector, Kadane et al 1*.
18- 9-22w Seidel, Christmas et al 1*.
31- 8-21w Unknown, Kouri et al 1*.
21- 9-23w Roberts, Ike Williams 1*.
24- 8-22w Unknown, L. L. Lyons 1*.
36- 8-22w Tarty, Kouri et al 1*.
6- 9-24w Burkhalter, Pringle et al 1*.
29- 9-23w Baker, Caudill & Cravey 1.
14- 9-23w Ingram, The Texas Co. 1*.

Blaine County—
7-18-10w Cronister, Byers et al 1*.
21-15-10w Friennemeier, Okomo Oil 1*.
30-15-11w Vogt, F. & N. Oil 1.
23-15-11w Lookabaugh, Pringred & Farren 1*.

Caddo County—
11- 5- 9w McKenna, Lawhead et al 2.
35- 6- 9w Fugate, Acme Dev 2.
8-11-12w West, Birmingham & Kelsay 1*.

Canadian County—
34-13-9w Dawson, Ponca O. & G. 1*.
2-13-8w Wrightsman & Revals 1*.

Cherokee County—
23-19-21 Unknown, Adkison et al 1*.
23-18-19 McKay, Great Western Dev. 1*.
35-18-19 Talbert, Aggie & Kirker 1.
20-17-22 Benge, Beeler et al 1.
6-16-22 Unknown, Corridan et al 1*.
33-19-23 Unknown, Gahoma O. & G. 1*.

Cimarron County—
22-5-9e Martin, Campbell, Riley et al 1*.

Cleveland County—
21-6-4w Rowland, Garr Oil 1*.

Coal County—
24-1n-8e Jefferson, McPherson et al 1*.
34-2n- 9 Park, Bassell Oil 1*.

Comanche County—
32- 2- 9w School Land, Samuels 1*.
32- 2- 9w Fatch, Harry Hanberry 1.
24- 2-10w Cox, Cherry et al 1*.

Custer County—
1-15-15w Rough, Parker O. & G. 1*.
26-15-18w Hatcher, Price & Pringley 1*.
1-14-14w Boone, Gulier & Ossenbeck 1*.
17-13-14w Cut Finger, Magnolia Pet. 1.
23-13-14w Fry, Pauline Oil 1*.

Dewey County—
22-16-18w Elders, Morton et al 1*.

Ellis County—
2-21-24w White, Gage O. & G. 1*.

Garvin County—
21- 4-1w Florence, Aetna Oil 1*.
13- 1-3w Hatfield, Texas & Pacific 7.
13-2n-3e Dilbeck, Goldentine Oil 1.
9-1n-3w Parnell, Texas & Pacific 12.
8-1n-2w Franklin, Tidal-Osage Oil 1.
35- 1-3w Riddle, Texas & Pacific 1.
18-1n-3w Derdyn, Murphy et al 1*.
10-3n-3e Huttall, Heath & Bowman 1*.
18-1n-1e Richardson, Binder et al 1*.

Grady County—
28- 3-5w Pearcy, Magnolia Pet. 1.
7- 3-5w Horton, Roy Nash 1.
26-5n-8w Smith, Briscoe & Hall 2.
23- 5-8w McCaughtry, Stogner et al 2.
22- 5-7w McFarland, Badgett & Hughes 3.
17- 5-7w Nail, Nichols Drilling 2*.
11- 3-5w Sherrell, Gant Becker 1.

Grant County—
27-27-3w Lane, Western States 1*.
2-26-6w McKenna, Wrightsman 1.

20-26-4w Edwards, Emery & Leright 1*.
26-27-3w Snouffler, Associated P. & R. 3*.
22-25-4w Volmer, Myers O. & G. 1.
19-25-5w Reynolds, Hutchison et al 1*.
8-27-5w Moon, Midwest & Gulf 1*.
11-26-5w Bonham, Broadhurst & Foster 1.
14-25-5w McGley, Myers O. & G. 1*.
28-27-3w Martin, Day Oil 3.
29-29-4w Ridings, Phillips Pet. 1*.
22-27-3w Stewart, Western States 4-A.
14-27-3w Howell, Western States 1*.
23-27-3w Crouch, Western States 2.
30-27-4w Fuss, Thraves et al 1.

Greer County—
22- 7-23w Drummond, Western Nat. Gas 1*.
8- 7-22w Johnson, Neal et al 1*.
27-7-22w Bowman, White & Debolt 1*.

Jackson County—
26-2n-23w Unknown, Ship et al 1.

Kingfisher County—
30-16-9w Burton, Pansy Oil 1*.
25-17-5w Smith, Bryssey & Hines 1*.

Kiowa County—
34-7-16w Indian Land, Conner et al 2.
8-7-17w Unknown, Aubyme Oil 1.

Lincoln County—
1-14-6 Zoller, Roxana Pet. 6, 8*.
Welch, Amerada & Wrightsman 2.
2-14- 6 Brooks, W. Phillips & Sinclair 1*.
Jackson, Union Pet. & Supply 2.
3-14- 6 Schubel, Union Pet. & Supply 1.
9-14- 6 Doolen, Prairie O. & G. 1.
11-14- 6 Barber, The Texas Co. 2.
12-14- 6 Dowell, J. A. Hull 4, 6, 7.
Townsite, Union Pet. 2, 5, 7, 8.
Townsite, Willm O. & G. 1, 2, 3.
Townsite, Atlas Drilling 1.
Townsite, J. B. Bailey et al 1.
Townsite, Berry et al 1.
Townsite, Dowell et al 1, 2.
Townsite, Hoyt & Wicker 1.
Lewis, Amerada Pet. 8.
12-14- 6 Brace, Roxana Pet. 3.
Brace, Gypsy Oil 1.
Townsite, Dowell et al 1, 2.
Townsite, C. F. Noble 1, 2.
Townsite, Wheeler & Webb 1, 2.
Lewis, Roxana Pet. 1.
19-17- 3 Unknown, Plateau Oil 1.
16-16- 4 School land, Sartain Bros. 1*.
17-15- 3 Powell, The Texas Co. 1.
16-15- 6 Lovett, Blankenship et al 1.
21-14- 6 Scheff, Stroud Oil & Gas 1*.
6-15- 6 Earp, Independent O. & G. 1.
14-15- 5 Edwards, Flynn & Morgan 1.
7-14- 4 Norton, Heinz & Green 1.
7-13- 3 Ewing, Douglas Oil 1*.
14-13- 6 Heinzig, Prod. & Ref. 1*.
16-13- 5 Keller, Sun Ray Oil 1*.
7-14- 5 Ayers, Magnolia Pet. 1.
18-14- 5 Bray, Magnolia Pet. 1.
16-14- 5 Wilson, Jennings Bros. 1.
12-14- 4 Leake, Pure Oil 1.
26-14- 4 Spencer, J. C. Cooke 1*.
22-17- 3 Young, R. W. Wills 1.
26-17- 5 Linoley, Grimes et al 1*.
22-15- 2 Jones, F. O. Howarth 1.
23-15- 4 Dodrill, Magnolia Pet. 1.
1-15- 6 Bowers, McMan O. & G. 1.
16-14- 6 Sac & Fox, J. C. Cook 1.
8-13- 4 Lewis, Mountain States Oil 1*.
26-12- 2 Walker, Eugene Costa 1*.
6,12- 5 Richardson, J. C. Cook 1*.

Logan County—
26-15-2w Baker, Oklahoma Drg. 1*.
35-19-3w Newman, Burford & Brim 1.
6-19-2w Myer, Gilliland Oil 1.
22-15-1e Pritchard, Magnolia Pet. 1.
32-16-1w Driggs, Pluto O. & G. 1.
28-18-4w Moore, Franklin Oil 1.

Major County—
9-22- 9w Unknown, Bradstreet Oil 1.
36-21-11w Williams, Frantz & Slick 1*.

Murray County—
29- 3- 2 Murray, Black Pet. Co. 1.

Oklahoma County—
24,11-3w Unknown, McBeth 1.

Pittsburg County—
29- 6-12 Townsend, Richards 1*.
22- 3-13 Fee, Ward Smith 1*.

Pontotoc County—
19- 5-7e Edwards, Howarth O. & G. 1.
32- 5-5e Brown, Carter et al 2*.
6- 3-7e Alberson, Lloyd & Smith 1*.
5-4n-5e Starrett, Craig et al 1*.
6-4n-5e Hatcher, Hyland Oil 1*.
16-4n-6e Berry, Lancaster & Smith 1*.
14-4n-7e Norris, Howarth O. & G. 1.
4- 2- 7 Walker, Empire G. & F. 1*.
17- 4- 6 Merryman, American O. & R. 2*.
15- 3- 6 Hays, Fitz Oil 1*.
24- 4-4e Dunagan, C. J. Wrightsman 1*.
28- 4- 7 Porter, Hughes et al 1*.
24- 5-6e Stringer, Bowles & Smith 1*.

Pottawatomie County—
19- 7- 4 Neglinguet, Pierce & McMan 1*.
4- 5-5e McFarland, Riverland Oil 1*.
8- 5- 3 Ball, Day Oil 1.
13-11- 3 Unknown, Blaumer et al 1.
10- 6- 2 McGee, Davy et al 1.
12-10- 2 Howell, Ossie Oil 1.
25-10- 4 Brooks, T. F. McMann 1*.

Pushmataha County—
31-2n-19e Peachwood, Anchor Oil 1*.
3-2n-15e Jordan, Rawson-Vosburg 1.
31-2n-15e McGee, George et al 1*.

Roger Mills County—
28-14-23w Lindell, Porter Lease Synd. 1*.
3-12-26w Baker, Concord Oil 1*.
33-16-22w Unknown, Colorado Oil 1.
15-15-26w McClure, Thomas & Fide 1.

Sequoyah County—
1-11-21e Wilson, Mathes Pet. 1*.
31-12-23e Sanders, J. C. King et al 1.

Texas County—
6-1n-17e Wood Ranch, Beaver Oil 1*.

Tillman County—
12- 1-17w Faulkner, H. S. & H. Oil 1.

Washita County—
9- 8-15w Prettearess, A. D. Morton et al 1*.
22- 9-17w Unknown, Hartman et al 1*.
33- 8-18w Rice, Sun Ray & Aubyme 1.

Woodward County—
34-20-20w Unknown, Beard et al 1*.

Woods County—
19-24-14w Whitney, McCray et al 1*.
16-28-15w Buskirk, Victor Oil 1*.

SOUTHERN OKLAHOMA

Rigs

Jefferson County—
34-5s-6w Culbertson, Barber et al 1.
4-4s-5w Brown, Ely et al 1.
28-4s-6w Timms, Magnolia Pet. 1.
31-4s-5w Seay, Hapgood et al 1.

McCurtain County—
24-3s-23e Brown, Noco Pet. 1.

Wells Drilling and Shut Down
(Shut Down Wells Indicated by *)

Atoka County—
7-2s-9e Wyand, McPherson et al 1.
28-2s-9e Underwood, Wapanucka Dev. 1.
17-4s-11e Dabney, Hauser et al 1.
1-2s-9e Kemp, Oklahoma & Northern Oil 1.

Bryan County—
34-6s-7e Starles, Patterson & Hoffman 1.
26-7s-11e Alexander & Oppenheimer 1*.
11- 6-9e Coombs, Lyons Pet. 1*.
14- 7-7e Love, H. C. Halley 1*.

Choctaw County—
2-6s-15e Goekel, Smith et al 1*.
15-6s-19e Wilson, Choctaw Pet. 1.

Jackson County—
15-1s-23w Unknown, J. R. Abernathy 1*.

Jefferson County—
1-7s-6w Seay, Humble O. & R. 1*.
3-7s-7w Wray, Jas. Lugg 1.
13-7s-6w Blythe, Oklahoma-Southern Oil 1.
13-7s-6w Reed, Landis et al 1*.
33-6s-5w Seay, Hambro Oil 3.
33-7s-6w Stanfield, Elize et al 1*.
34-6s-5w Seay, Prairie O. & G. 1.
34-6s-5w Seay, Clark & Cowden 1*.
4-7s-5w Seay, Couch & Cherry 1*.
5,7s-5w Seay, John O'Donohue 1*.
21-5s-6w Major, Tarkington & Kelsey 1.
31-4s-8w Anderson, Shawver & Sutter 1*.
9-4s-4w Mullins, Healdton Pet. 1.

Johnston County—
9-4s-4e Trotter, Root et al 1*.

Love County—
11-7s-2e Wilson, Drillers Synd. 1*.
29-6s-3e Starrett, Simms Pet. 2.
17-6s-1w McCluskey, Humble O. & R. 1.

Marshall County—
36-5s-6e Holden, United 8 Oil 1*.

McCurtain County—
14-9s-25e Harris, Bellworth O. & G. 1*.
15-8s-26e Wilson, Red River Pet. 1*.

Tillman County—
6-5s-15w Hanneville, Fidelity Oil 1*.
23-2s-17w Foster, Luffborough 1*.
10-4s-18w Couch, Spears et al 1*.
34-1s-17w Brink, Luffborough 2*.
Rigs, 24; wells drilling, 228; total, 252.

KANSAS FIELDS

Summary of Wells Completed

County—	Comp.	Prod.	Dry	Gas
Butler	0	0	0	0
Montgomery-Wilson-Neosho-Allen	17	4.884	3	5
Miami-Franklin-Anderson	18	705	4	0
Greenwood-Woodson	32	2,091	13	0
Chautauqua-Elk	3	40	0	0
Miscellaneous	32	6,091	17	3
Total August	102	13,811	39	8
Total July	144	9,253	31	5
Difference	42	4,558	8	3

Summary of New Operations

County—	Rigs	Drg.	Ttl.
Butler	2	16	18
Marion	0	4	4
Greenwood-Woodson	23	38	61
Cowley	16	38	54
Chautauqua-Elk	3	8	11
Montgomery-Wilson	1	12	13
Neosho-Allen-Anderson	0	14	14
Miami-Franklin	0	3	3
Miscellaneous	27	97	124
Total August	72	230	302
Total July	72	256	328
Difference	0	26	26

MONTGOMERY COUNTY

34-32-15 McCullough, Roth & Faurott 3 gas
4-32-16 Bailey, Independent O. & G. 9 gas
34-32-15 McCullough, Roth & Faurott 4 gas
6-32-15 Clem, Williams, Reardon 1.... dry
14-33-16 Zutz, F. Simcox et al 1 ..... gas
8-34-17 Barber, Jesse Graham 11 25
9-34-17 DeGreer, James Huffman 1... gas
8-34-17 E. Carl, Van Vleck-Graham 2. gas
Barber, Jesse Graham 12 35
J. Carl, Van Vleck-Graham 3.. 20
36-32-13 Stark, Southwestern Utilities 11 2
28-32-14 Jenkins, Red Bank Oil 1.....3000
33-32-14 Good, Red Bank Oil & Lamb 1.1000
33-32-14 Haines, Red Bank Oil & Lamb 1 800

Wells completed 14
Production 4882
Dry 1
Gas 5
Gas production 2,350,000

NEOSHO COUNTY

14-27-17 Woolsey, Franklin Oil 1 ..... dry
20-28-19 Widner, Everett Georges 1.... dry

Wells completed 2
Production 0
Dry 2
Gas 0
Gas production 0

ALLEN COUNTY

34-24-20 W. T. Strong, Devonian Oil et al 8 2

Wells completed 1
Production 2
Dry 0
Gas 0
Gas production 0

FRANKLIN COUNTY

4-18-21 Roseberry, J. A. VanHorn 1.... 5

Wells completed 1
Production 5

ANDERSON COUNTY

7-21-20 Johnson, Whiteside & Rich 1.. 40
15-21-20 E. Ware, A. H. Keys 6 60
13-21-20 Ewing, Peerless Oil of Kans. 17 70
18-21-21 Mulkey, D. W. Pollinghorn 2.. dry
15-21-20 Carl Weiss, Bellport-Campbell 6 70
Carl Weiss, Bellport-Campbell 5 15
1-21-19 Benjamin, Gooch, Denton Pet. 7 30
31-20-20 Bowman, Great Western Synd. 11 ..... dry
2-21-19 Lank, H. C. Cooper et al 3.... 30
13-21-20 Ewing, Peerless Oil of Kans. 16 70
14-21-19 Carr, J. L. Rich et al 1 100
16-21-20 Canady, Pioneer Mutual Oil 1 dry
27-22-19 Ramsey, D. W. Polkinghorn 3. dry
2-22-19 Buchanan, Van Horn-Reichart 2 25
27-21-19 Kellstadt, Odessa Oil 2 65
9-22-19 Strain, Strain O. & G. 8 75
2-22-19 J. M. Gillespie, D. D. Nolan 6. 40

Wells completed 17
Production 700
Dry 4
Gas 0
Gas production 0

CHAUTAUQUA-ELK COUNTIES

23-34- 8 Shraeder, T. B. Slick 1 ..... dry
1-29- 9 Marrhall, Arkansas Fuel 5 ... dry
Marshall, Arkansas Fuel 6 ... 40

Wells completed 3
Production 40
Dry 2
Gas 0
Gas production 0

GREENWOOD-WOODSON COUNTIES

26-22-13 Kansas City Hay Co., Peerless O. & R. 1 ..... dry
17-23-13 Bays, Arkansas Fuel Oil 4.... 10
14-24-12 Sullivan, Houston Oklahoma ' 55
24-21-11 Matile, National Ref. et al 1.. dry
30-22-10 Prather, Phillips Pet. 3 15
18-22-11 Clopton, Cosden O. & G. 2 .... dry
27-22-11 Wick, Skelly Oil 13 40
28-22-11 Clark, Syndicate Oil 5 50
14-24- 9 Hellman, Prairie O. & G. 9.... 230
27-24- 9 Marshall, Miller et al 1 ..... dry
36-26- 8 Yenner, Burke & Nelson 1.... dry
19-22-10 Browning, White Eagle O. & R. 1 ..... dry
11-23-10 Hairtead, Henderson et al 1... dry
31-23-10 Martindale, Mid-Kansas O. & G. 4 200
Martindale, Mid-Kansas O. & G. 5 200
Martindale, Mid-Kansas O. & G. 9 300
32-23-10 Thrall, Mission Oil 38 75
6-24-10 Cartwright, John Rogers 6 ... 100
22-24- 9 Hendrickson, Beverly et al 2.. 150
4-25- 9 Henley, Pure Oil 1 ..... dry
26-26- 8 Kerr, Miller et al 1 ..... dry
14-24-12 Sullivan, Houston Oklahoma 7 50
5-22-10 Pixlee, Benson et al 1 ..... dry
31-23-10 Martindell, Mid-Kansas O. & G. 10 300
1-24- 9 Marshall, Arkansas Fuel Oil 5 dry
Marshall, Arkansas Fuel Oil 6 75
14-24-12 Sullivan, Cosden O. & G. 13.. 30
18-22-11 Clopton, Simmons et al 1 .... dry
11-24- 9 Olsen, Transcontinental Oil 6.. 50
Olsen, Transcontinental Oil 13. 150
25-25- 8 Jackson, Pierce et al 1 11
10-23-13 Young, Theta Oil 7 ..... dry

Wells completed 32
Production 2091
Dry 13
Gas 0
Gas production 0

MISCELLANEOUS

Cowley County—
24-32- 4 Deifelder, J. A. Hull 9 396
35-30- 3 Durham, Shawver & Sutter 1.. dry
10-31- 3 Smith, Trees Oil 1 55
20-33- 3 Glasco, Waite Phillips 2 ... 2304
5-31- 6 Eastman, Martin & Wilson 3.. 60
17-31- 6 Harris, Collins et al 1 ..... dry
32-31- 6 Balldoe, Ballaire et al 1 ..... dry
14-30- 4 Magnuson, Shawver & Sutter 1 dry
6-30 6 Eastman, Shawver & Sutter 1.. 100
18-30- 6 Overstake, Ramsey et al 1.... dry
31-30- 6 Crouch, Titus et al 2 45
18-32- 6 Harmon, Southwestern Pet. 1. abd
6-31- 3 Eastman, Southwestern Pet. 2. 240
20-33- 3 Glasgow, W. Phillips et al 3..2026

Sumner County—
34-30-1w Hesket, Champlin Ref. 1..... dry

Marion County—
15-22- 3 Russel, Amerada Pet. 1 ..... dry
22-18- 4 Stika, Douglas & Younger 1.. dry

Harper County—
14-33-9w Nettingham, Fleeger et al 1.. dry

Russell County—
3-13-13w Phillips, Valerius O. & G. 1.. dry

Osage County—
15-16-17e Floroy, C. E. Roth & Co. 1... dry

Bourbon County—
35-23-21 Wolf, Ed Henninger 2 ..... gas

Coffey County—
14-23-13 Kelly, W. E. Kelly 9 50
Kelly, W. E. Kelly 10 ..... dry
Bahr, Atlantic Oil 2 60
Bahr, Atlantic Oil 3 40
12-20-12 Finnell, L. L. West 1 ..... dry
19-21-14 Slater, Ed Erwin 1 ..... dry
28-21-14 Smith, W. Phillips 1 ..... dry
36-21-13 Lovette, C. M. Hawk 1 ..... gas

Lyon County—
9-21-13 Case et al, Haywood Hayden 2 gas
29-21-13 Turner, Corbin-Haver 6 15
28-20-13 Quinn, Liberty Oil 16 ..... dry

Wells completed 32
Production 6091
Dry 17
Gas 3
Gas production 1,750,000

BUTLER COUNTY

Rigs

32-26- 6 Shriver, Foraker et al 1.
27-28- 5 Cameron, Elwell et al 2.

Wells Drilling

27-24- 6 Benson, Imperial Ref. 1.
34-25- 6 Swartz, Equal Oil et al 1.
33-27- 7 Cleary, Baker et al 1.
17-28- 7 Everton, Duller et al 1.
5-25- 4 Fitch, J. A. Vickers et al 1.
22-29- 3 Noble, Hartman & Skaer 1.
30-29- 3 Robinson, Jack Robinson 1.
23-29- 5 Bruh, Bellport et al 1.
18-24- 5 Joseph, Kightlinger et al 1.

Shut Down

10-28- 6 Sibaugh, Mid-Kansas O. & G. 1.
22-28- 6 Petit, John Sharp et al 1.
21-29- 6 Baker, Tobin et al 1.
23-28- 5 Burch, Bellfort et al 1.
2-29- 2 McFleming, Higgens et al 1.
33-27- 7 Cleary, Becker et al 1.
32-26- 6 Palmer, Sparta Oil 1.
Rigs, 2; wells drilling, 16; total, 18

MARION COUNTY

Wells Drilling

8-22- 4 Spier, J. H. Markham 2.
18-24- 5 Joseph, Kightlinger et al 1.

Shut Down

17-21- 4 Read, National Ref. 12.
5-22- 4 Townsend, Watchorn O. & G. 37.
Rigs, 0; wells drilling, 4; total, 4.

GREENWOOD-WOODSON COUNTIES

Rigs

16-23-13 Burris, Peerless O. & R. 1.
28-26-13 Ingersoll, Marland Oil 1.
13-22-10 Kipper, Derby Oil 1.
19-22-10 White Eagle & Nelson 2.
7-22-11 Maloney, Gypsy Oil 1.
28-22-11 Clark, Phillips Pet. 8.
22-23-10 Allen, Mid-Kansas O. & G. 13, 43.
29-23-10 Thrall, C. E. Roth 2.
32-23-10 Thrall, Mission Oil 5, 23, 24.
McKee, Phillips Pet. 9, 17, 18.
5-23-11 Seely, Phillips Pet. 13.
8-23-11 Clopton, Empire G. & F. 13.
36-23- 9 Teeter, Simmon et al 1.
14-24- 9 Hellman, Prairie O. & G. 8.
22-24- 9 Higgens, Mission Oil 6.
Hendrickson, Polhamus et al 2.
23-24- 9 Higgens, Royer et al 3.
Holverson, Leonard Pet. 2.

Wells Drilling

14-24-12 Sullivan, Houston Oklahoma 8.
Sullivan, Cosden O. & G. 13.
19-22-10 Browning, R. G. Gillespie 5, 6.
18-22-11 Clopton, Simmons & Burke 1.
1-23-10 Bell, Pirher et al 1.
31-23-10 Martindell, Mid-Kansas O. & G. 11.
34-22-10 Hull, Prairie O. & G. 1.
6-24-10 Cartwright, John Rogers 4.
15-22- 9 Hughes, Phillips Pet. 1.
36-23- 9 Cartwright, Roth et al 2, 3.
1-24- 9 Huddleson, Lewis Oil 3.
22-24- 9 Hendrickson, Beverly et al 3, 4.
23-24- 9 Holverson, Rogers et al 2.
Armondson, Gypsy Oil 1.
Wiggens, Mission Oil 4, 5.
27-24- 9 Hill, Miss Fontaine et al 1.
29-24- 9 Hover, Harry Hover et al 1.
34-24- 9 Marshall, Polhamus et al 12.
25-25- 8 Jackson, Pierce et al 1.

Shut Down

22-25-14 Fay, Curtiss Oil 1.
7-22-12 Elrod, Elrod et al 1.
10-23-13 Young, Theta Oil 7.
14-23-13 Elliott, Manhattan Oil 11.
11-24-12 Dalton, Franklin Oil 14.
18-22-10 Hughes, Rhodes & Able 1.
31-23-10 Martindell, Mid-Kansas O. & G. 8.
23-24-10 Edwards, J. A. Edwards 1.
14-25-10 Norman, Jackson et al 1.
15-23- 9 Bradford, Phillips Pet. 1.
16-23- 9 Teeter, Empire G. & F. 15.
11-24- 9 Olsen, Transcontinental Oil 6, 13.
12-24- 9 Gypsy Oil 6.
1-25- 9 Houge, Dingee et al 1.
Rigs, 23; wells drilling, 38; total, 51.

ELK-CHAUTAUQUA COUNTIES

Rigs

11-29- 8 Porter, Sinclair C. & G. 2.
12-29- 8 Porter, Roth & Burt Oil 7.
13-29- 8 Hanna, Roth & Burt Oil 3.

Wells Drilling

6-22-10 McKinster, Thompson et al 1.
18-32-10 Green, Page Bros. 1.
11-33-10 Chamberlain, Fisher Oil 1.

Shut Down

18-32-10 Maloney, McKay et al 1.
33-32-10 Wiggens, Page & Kay 1.
21-31- 9 Stiles, Triplett et al 1.
13-29- 8n-Porter, Empire G. & F.
14-29- 8 Hanna, Roth et al 8.
Rigs, 3; wells drilling, 8; total, 11.

MISCELLANEOUS

Barber County—
27-32-14w Elsen, B. B. Brown et al 1.

Cowley County—
10-31- 3 Shaffer, Trees Oil 1
4-33-3e Alexander, W. Phillips 1.
3-33-3e Poor, Gypsy Oil 1.
6-31- 6 Eastman, Southwestern Pet. 8.
7-31-6e Palmer, E. B. Shawver et al 1.
20-34-4e Goff, Joe Nathan et al 1.
17-33- 3 Thrulow, Hill & Phillips 1.
6-31- 6 Eastman, Empire G. & F. 4.
6-30- 8 Manhannah, Paul Trees 3.
5-35-5e Sterling, Overleese & Springstead 1.
20-33- 3 Wertman, W. Phillips et al 5, 6.
29-33- 3 Johnson, W. Phillips et al 1.
24-32- 4 Leimbrock, J. A. Hull Co. 3.
7-32- 5 Crotsby, Ark. Fuel 2.
11-31-3e Clark, Ark. Fuel 1.
30-30-6e Sanborn, White Eagle 1.

Ellis County—
33-15-20w Murphy, Faler & Rosenthal 1.
14-12-16w Smith, Jim Davis et al 1.
24-14-7w Walker, Laurel O. & G. 1.

Ellsworth County—
18-17- 7w Unknown, Duquette et al 1.

Lincoln County—
22-11-6w Lewis, Pope & Powell 1.
29-12-8w Rohwer, Eisenhour et al 1.
19-11-6w Stone, Scott & Collins 1.

Gove County—
23-13-26w Keys Bros. & Marine Oil 1.
2-11-26w Keys Bros. & Marine Oil 1.

Harvey County—
19-22- 2 Godfrey, Stalker et al 1.

Lyon County—
20-20-12e Miller, Tatlock et al 1.

McPherson County—
29-18-2w Anderson, Waugh & Casey 1.
29-20-5w Lindquist, Benson et al 1.
22-19-6w West, Carey et al 1.
9-21-5w Barnholtz, Wolf Creek O. & G. 1.

Rice County—
22-19-6w West, Emerson Carey et al 1.

Rush County—
18-17-17w Duquette et al 1.
22-18-19w Kirby, Raber et al 1.

Russell County—
13-11-13w Paspische, Sawtelle et al 1.

Osborne County—
9-10-14w Beelby, C. E. Knight 1.

Saline County—
29-14- 2w Davis, Johnson Bros. 1.

Sumner County—
16-30-1w Hitchcock, Champlin Ref. 2.
16-35-1e Talmadge, National Union 1.
8-30-2e Stubbs, Parkins et al 1.
25-33- 2 Wood, Brady Bros. 1.

Trego County—
23-13-26w Keys & Maine Pet. 1.

Wells Drilling and Shut Down
(Shut Down Wells Indicated by *)

Barber County—
33-30-14w Unknown, Wizard Oil 1.

Barton County—
22-18-13w Everleigh, Mountain States 1*.
27-18-12w Soocy, Cheyenne Oil 1*.
31-18-12w S. J. Tall, Haynes 1*.
21-19-12w Unknown, McMahon et al 1.
11-16-12w Schauf, Jasper & Beschka 1.
17-19-11w Smith, Huffine et al 1.

Chase County—
19-21- 6 Giffith, Security O. & G. 1*.
13-19- 8 Koub, Dave Alter et al 1*.
15-22- 9 Hughes, Phillips Pet. 1.
1-19- 8 Quinn, Muncey Oil 1.

Clark County—
20-32-21w Unknown, Watchorn O. & G. 1.

Cloud County—
6- 6- 4w Unknown, Concordia O. & P. 1*.

Coffey County—
14-23-13 Elliott, Manhattan Oil 11.
26-19-13e White Eagle 1.

Cowley County—
21-32-6 Bolack, Murphy et al 1.
6-33-3 Allbright, W. Phillips 1.
9-33-3 Wood, Acorn Oil 1*.
20-33-3 Wertman, W. Phillips et al 4.
L. F. Johnson, W. Phillips et al 1.
D. Johnson, W. Phillips et al 1.
Nelson, W. Phillips et al 1.

Glasco, Hill & Phillips 4.
34-33-3 Shehan, Marland Oil 1.
29-33-3 Hansen, Phillips & Gypsy 1.
34-33-4 Dover, Hartman & Skaer 1*.
32-31-4 Brasher, Brown Brothers 1.
24-32-4 Lewis, J. A. Hull 1.
9-35-6 Eckhardt, Phillips Pet. 1*.
14-34-4 Wahlenmeier, Johnson & Ashe 1.
19-32-3 Foster, T. B. Slick 1.
12-32-4 Newman, Ark. Fuel 1.
18-32-3 Dunn, Bryan & Stinson 1.
10-35-5 Warren, Trees Oil 1.
33-34-3 Bocoston, A. Rich et al 1*.
14-31-4 Sherwood, Trees Oil 1.
3-31-5 Perry, Vickers Pet. 1*.
18-31-5 Shannon, Arkansas River Gas 1.
5-31-6 Eastman, Empire G. & F. 1.
6-31-6 Eastman, Empire G. & F. 2, 1-C.
6-31-6 Eastman, Southwestern Pet. 4, 7.
10-30-3 Charlton, Midwest & McNabb 2.
31-30-6 Robbins, Lewis Oil 3.
26-31-8 Waite, Arkansas Fuel 1*.
17-31-6 Harris, Boggers & Collins 1*.
31-30-6 Gibbs, Lewis Oil 1.
24-30-6 Ward, C. E. Christy et al 1.
36-32-4 Kertley, Watchorn O. & G. 1.
35-30-5 Wray, Rogers Brothers 1*.
29-30-5 Dunbar, Acorn Oil 1.
18-30-6 Bunyan, Ramsey et al 1.
31-30-6 Elliott, Titus Oil 2.

Ellis County—
18-13-17w Palifka, J. A. Harvey 1*.

Finney County—
33-21-30w Ladd, C. J. Wrightsman 1.

Geary County—
30-13-6e Foster, Marshall et al 1*.

Graham County—
23-8-24w Taxton, Keys Bros. 1*.

Hamilton County—
5-26-41w Ransom, Wood Oil 1.

Harvey County—
4-23-2 Conway, Mason & Ralston 2.
4-23-2 Masters, Derby Oil et al 1.
9-23-2 Gatz, Frank Wahn 2.

Kingman County—
34-27-7w Garber, Hayes et al 1*.

Lincoln County—
25-12-10w Dahl, Turman Oil 1.
31-12-10w Lambert, Berry & Rosenthal 1*.
36-11-10w Koeler, Trees Oil 1.
36-13- 7w Paul, W. Phillips et al 1.
19-13- 9w Jellison, Amerada Pet. 1.
16-11- 7w Crawford, Amerada Pet. 1.

McPherson County—
26-21- 5w Thelson, Ramona O. & G. 1.
36-19- 6w Bees, Rino Oil 1*.
21-20- 2w Lynn, Krown & Krown 1*.

Osborne County—
20-10-11w Dorman, Delhi O. & G. 1.
34-10-15w Worley, Liggett et al 1.

Osage County—
6-14-14e Hughes, R. G. Gillespie 1.

Pottawatomie County—
11-10-12 St. Mary's, Crawford et al 1*.

Mitchell County—
10- 9- 8w Beleer, Alcorn Oil 1.

Reno County—
5-26- 4w Unknown, Travis et al 1*.
28-25- 6w O'Hallaran, Gano 1*.
2-25- 6w Mohr, Jennings- Pells & Star 1.
13-23- 8w Jones, Rino O. & G. 1.
3-22- 6w Sallee, Hipple et al 1*.

Rice County—
7-20- 6w Bush, Rino Oil 1.
14-20- 6w Warnett, Prairie O. & G. 1.
35-20- 6w Miller, Prairie O. & G. 1.
1-19- 7w Deds, Pryor & Lockhart 1*.
16-21-10w Taylor, Turman Oil 1*.
21-20- 6w Barnes, Stamey et al 1.
10-18- 6w Walker, Jasper & Beschka 1*.

Riley County—
26-10- 6 Marks, O'Neil et al 1*.

Rush County—
3-16-16w Wallace, Chas. F. Noble 1*.

Russell County—
4-13-15w Walbridge, Patton et al 1*.
3-13-13w Phillips, Valerius O. & G. 1*.
36-15-13w Sellers, Alcorn Oil 1.
24-13-13w Harbaugh, Preston et al 1*.
1-14-11w Whitman, J. G. Buell 1.
9-14-15w Mermis, Prod. & Ref. 1.
20-12-15w Milke, S. & S. & J. Findless.
14-12-14w Harberer, Skelly Oil 1.
36-12-13w Fairchild, Valerius Oil et al 1.
13-13-14w Hill, Prairie O. & G. 1.
11-12-12w Murphy, Skelly Oil et al 1.
8-12-15w E. Oswald, Valerius O. & G. 2.
8-12-15w Oswald, Derby Oil et al 1.
8-12-15w E. Oswald, Valerius O. & G. 2.
17-12-15w Oswald, Valerius O. & G. 1, 2.
16-12-13w Beatty, Prairie O. & G. 1.
23-12-11w Dick, Richey & Moore 1.
33-12-11w Cooper, Pouder & Pomeroy 1.
24-12-15w Halse, Prod. & Ref. 1.
31-12-14w Halse, Lewis Oil 1.
29-11-15w Sutton, Findless, S. & S. 1.

Saline County—
15-15- 4w Holinquist, Thralls et al 1*.

Sedgwick County—
2-29- 2 Fleming, Higgins et al 1.
29-29- 2 Heacker, Hartman-Skaer et al 1*.
27-29- 1 Fleshman, Corden O. & G. 1.
27-27- 4w Tuielmeyer, Cole & Neff 1.
34-26- 1 Tjaden, Wichita O. & G. 1*.

Seward County—
34-34-34w Wood, Defender O. & G. 1*.
20-33-33w Seely, Seward Oil 1.

Stafford County—
23-21-11w Cooper et al 1.

Sumner County—
34-34- 1w Johnson, Shawver et al 1.
3-35- 2e Sherrock, Prairie O. & G. 1.
29-34- 2e Work, Phillips Pet. 1*.
8-33- 3w Felt, Phillips Pet. 1.
23-34- 2e Poggett, Alcorn Oil 1.
29-32- 2 Veoil, Phillips Pet. 1.
1-33- 1w Raurey, Tidal Oil 1.
27-32- 2w Brumweet, Phillips Pet. 1.
12-31- 1w Stewart, Phillips Pet. 1.
34-30- 1w Conn, Champlin 1.
16-30- 1w Hitchcock, Champlin Ref. 1.
17-30- 1w Kraft, Champlin Ref. 1.

Trego County—
16-11-24w Keys Brothers & Marine Pet. 1.
9-11-22w Unknown, Mississippi Valley Oil 1.
5-11-25w Welch, Keys Bros. Pet. 2.

Wilson County—
12-30-16 Unknown, Travis et al 1.

Montgomery County—
6-35-15 Denel, Canary Oil 1.
28-32-14 Jenkins, Red Bank Oil 1.
Love, Red Bank Oil & Lamb 1.
31-32-14 Hoffman, Harwood & Woodrow 1.
33-32-14 Megonigle, Red Bank Oil & Lamb 1.
Good, Red Bank Oil & Lamb 1.
Megonigle, Tucker & Connolly 1.
Haines, Red Bank & Lamb 1, 2.
5-32-15 Crane, Greer et al 1.
10-31-16 Henderron, O. N. Goldrick 1.
Rigs, 44; wells drilling, 147; total, 191.

EAST CENTRAL TEXAS

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Navarro	31	9,117	7	1	7	51	58
Miscellaneous.	7	.....	7	0	3	38	41
Total Aug...	38	9,117	14	1	10	89	99
Total July..	54	19,526	11	1	23	86	109
Difference..	16	10,409	3	0	13	3	10

The record of the Richland Field in

WELLS COMPLETED
NAVARRO COUNTY

Ramsey, Tidal Oil B-10 55
Boyd, J. K. Hughes Dev. 1 ..... dry
Woolens, D. F. Hughes 1 ..... dry
Thornton, Ranger Vindicator Oil 1 ..... dry
Webb, Hallmack Oil 7 450
Davis, Tucker et al 2 800
Davis, Wallace et al 1 115
Collins, Simms Oil 1 2
Hill, Elliott et al 5 220
Alexander, McIntyre et al 1 90
Woolens, Brandon & McCamey 3 ..... gas
Davis, Oxford Oil 2-A 250
Davis, Oxford Oil 2 140
Brown, Sun Oil Co. 10 800
Kent, Texas & Magnolia 23 50
Harvard, Bridwell & Gray 3 30
Boyd, Williams et al 2 30
Alliron, Godley et al 7 350
Allison, Godley Oil 8 500
Brown, Sun Oil 11 900
Witherspoon, Gulf Prod. 9 ..... dry
Ramsey, Tidal Oil B-11 25
Coleman, Simms Oil 1 10
Swink, Atlantic O. P. Co. 2 480
Webb, Boyd Oil 8 240
Davis, Tucker & Fox 2 1800
Brown, McDonald et al 3 ..... dry
West, Canfill & Penn and Shamrock Oil 1 ..... dry
West, J. K. Hughes 4 ..... abd
Davis, Meade et al 1 400
Brown, Sun Oil 12 1500

Wells completed 31
Production 9117
Dry 7
Gas 1
Gas production 2,000,000

MISCELLANEOUS

Falls County—
Price, Balto Tex Oil 1 ..... dry
Peters, Grover Edwards 1 ..... abd
Harlin, Texola Pet. 1 ..... abd
Clark, Pearce Pet. 1 ..... dry
Covington, Mayflower Oil 1 ..... dry
Brown, Edwards et al 1 ..... abd

Freestone County—
Bounds, Trapshooter Reilly 1 ..... dry

Wells completed 7
Production 0
Dry 7

NAVARRO COUNTY
Rigs

Boyd, Smith et al 1.
Richland Club, Smith & Wheelock 1.
Bounds, O'Bierne et al 1.
Davis, Derby Oil 2.
West, G. I. Moore 1.
Davis, Peyton et al 3.
Brown, Sun Oil Co. 14.

Wells Drilling

Roberts, Patrick et al 1*.
McGowan, Boyd Oil Co. 1, 2*.
Chapman, McMan Oil 8.
Springfield, Witherspoon et al 1.
Kenner, Pure Oil 1.
McKie, Pure Oil 64, 65.
Allen, G. Kent Oil 2.
Collins, Sims Oil 2.
Hill, Elliott et al 3.
I. T. Kent, Texas-Magnolia 27, 12.
Williamson, Andrews Pet. 2.
Boyd, Bridwell & Gray 1.
Boyd, Davis & Speers 4.
Goldman, Neeney & Smith 1.
Boyd, Smith et al 1.
Howell, Sims Oil 4.
Bounds, Brothers Oil 7.
Longbotham, Snowden & McSweeney 11.
Allison, Boyd Oil 1.
Firhing Club, Collins et al 1.
Brown, McDonald et al 1, 4.
Graves, McDonald et al 1.
Green, Smith et al 1.
Green, McDonald et al 1.
Richland Club, Sims Oil 1.
Richards, McIntyre et al 1.
Swink, Atlantic O. P. Co. 3, 4.
Davis, Derby Oil 1, 2.
Allison, Godley Oil 9.
Elkin, Gulf Prod. 2.
West, G. I. Moore 1.
Swink, Miller Lewis 1.
Davis, Oxford Oil 3-B, 4-B.
Davis, Peyton et al 1, 2.
Davis, Rowan et al 2.
Brown, Sun Oil Co. 1, 8.
Allison, Sims Oil 2.
Davis, Tucker et al 3, 4, 5.
Davis, Tucker et al 4, 5, 6.
Davis, Wallace et al 2.
Bledsoe, G. I. Moore 1.
Rigs, 7; wells drilling, 51; total, 58.

MISCELLANEOUS
Rigs

Anderson County—
Turner, Hughes et al 1.

Cass County—
Caster, Gibbs Pet. 1.

Van Zandt County—
Greer, Marland Refining Co. 1.

Wells Drilling and Shut Down
(Shut Down Wells Indicated by *)

Anderson County—
Parker, J. E. Williams et al 1*.
Brooks & Auld, Rosser et al 1*.
Morning Plant, Palestine O. & G. 1*.

Bowie County—
Parker, Baldy Springs 1*.
Rochelle, Delaney O. & G. 1*.
LeForte, Mook O. & B. G. 1*.
Taylor, Tri States Oil 1*.

Cass County—
Speers, Banjers Trust 1.
Evans, Caldwell et al 1*.

Cherokee County—
Clapp, Collington Drg. Co. 1*.

Dallas County—
Patrick, J. E. McNeill 1.

Franklin County—
Harper, J. E. McNeill 1*.

Falls County—
DeGraffenreid, Myrin et al 1*.
Penny, Edwin Falsey 1*.
Preston, Charles W. Harrison et al 1*.
Stallworth, Myrin & Stallworth 1*.
Peacock, High Banks Drg Co. 1.

Freestone County—
Gandy, Pratt et al 1.
Pickens, Kechi Pet. 1.

Henderson County—
Bounds, F. Haynes 1.
Eade, Richardson Bros. 1*.

Hopkins County—
Enix, The Texas Co. 1.
Brooks, Kelsey et al 1.
Smith, Cy Borden et al 1*.

Hunt County—
Barnett, Tullall & Kelsey 1*.
Barrow, Skinner & Lyles 1*.

Leon County—
Carrington, Mexia Marquest Oil 1*.

Limestone County—
Roach, Trout et al 1*.

Rains County—
Dowell, McLaughlin & Lyles 1.

Red River County—
Dinviddie, Brewer Rines 1*.
Simson, Clarksville Tex Oil 1*.
Arnold, Isabel Gibson 1*.
Antone, Johnson Pet. 1*.
Wortham, O'Bannon Bros. 1*.
Garland, Hogging Oil 1*.

Robertson County—
Wilkerson, J. C. Bland et al 1*.

Titus County—
Antone, Magnolia Pet. 1.

Van Zandt County—
Jones, Mexia Drg. 1*.
Dunbar, Terrell Oil 1*.

Wood County—
Senter, The Texas Co 1*.
Rigs, 3; wells drilling, 38; total, 41.

NORTH CENTRAL TEXAS

Summary of Wells Completed

District—	Comp.	Prod.	Dry	Gas
Wichita	63	2,830	26	0
Burkburnett	4	50	2	0
Eastland	13	365	5	1
Stephens County	19	3,345	5	1
Young	10	65	9	0
Archer County	67	3,442	28	0
Wildcats	40	4,280	19	3
Total August	206	14,377	94	5
Total July	313	15,210	122	10
Difference	107	833	28	5

Summary of New Operations

District—	Rigs	Drg.	Ttl.
Wichita-Wilbarger	15	39	54
Burkburnett	5	9	14
Eastland	1	17	18
Stephens	12	38	50
Young	3	18	21
Archer County	17	54	71
Wildcats	21	89	110
Total August	74	264	338
Total July	71	293	364
Difference	3	29	26

WELLS COMPLETED
BURKBURNETT-HIRSCHI

Donohoe, Couch and others 4 ..... dry
Overby, Kellogg and others 1 ..... dry
Donohoe, Couch and others 5 40
Donohoe, White and others 1 10

Wells completed 4
Dry 2
Production 50

WICHITA COUNTY

Jennings, Apple and others 5 ..... dry
Burnett, Burnett Ranch Oil Co. 3..... 125
Seay, Cowling and others 3 ..... dry
Burnett, Gulf Production Co. 22-A..... 135
Burnett, Kentucky Oil Corp. 1 ..... dry
Waggoner, Magnolia Petroleum Co. 6.. 5
Burnett, Stacey and others 1-B..... dry
Burnett, Section Two Oil Co. 2 35
Yarborough, Taylor and others 3..... dry
Burnett, Texhoma O. & R. and others 1 dry
McCarty, United Central Oil Corp. 7.. 360
Fassett, Dr. Wallace and others 3..... dry
Allen, Humble Oil & Ref. 2 30
Waggoner, The Texas Co. 294 40
Wiggley, Adams and others 1 ..... dry
Burnett, Burkland and others 1 ..... dry
Waggoner, Clopton and others 1 ..... dry
Waggoner, Culbertson and others 26 .. 10
Waggoner, Magnolia Petroleum Co. 3-C dry
Burnett, John O'Neil 3 ..... dry
Nance, Ryan Petroleum Co. 22 ..... dry
McCarty, Shaw and others 2 ..... dry
Burnett, Texhoma O. & R. Co. 6-C... 100
Burnett, Texhoma O. & R. Co. 7..... 215
Burnett, Texhoma O. & R. Co. 8 120
Peel, Bower and others 5 240
Allen, Cline Oil Co. 1-B ..... dry
Murray, Electra Gulf Oil Co. 6 125
Overby, Hill and others 8 75
Newton, Petroleum Prod. Co. 3 150
Newton, Underwood Drilling Co. 5... 200
Fassett, Bowen and others 1 ..... dry
Miller, Gulf Prod. Co. 1 ..... dry
Burnett, Gulf Prod. Co. 23-A 60
Burnett, Howell and others 1 ..... dry
Waggoner, Magnolia Pet. Co. 36-A... 25
McCarty, United Central Oil Corp. 8 .. 140
Maer, Church and others 2 20
Murray, Electra-Gulf Oil Co. 4 200
Kemp, Kruger and others 5 65
Kemp, Moore and others 3 ..... dry
Kemp, Petroleum Prod. Co. 4-A ..... dry
Maer, Petroleum Prod. 4 115
Newton, Underwood Drilling Co. 4 60
Burnett, Burnett Ranch Oil Co. 4 120
Burnett, Carter and others 2 ..... dry
Burnett, Evangeline Pet. Co. 1 ..... dry
Burnett, Hammond and others 1 ..... dry
McCarty, United Central Oil Corp. 9.. 20
Chilson, Campbell and others 1 ..... dry
Rhodes, Gulf Prod. Co. 1 ..... dry
Maer, Petroleum Prod. Co. 5 40
Sumner, Magnolia Pet. Co. 45 ..... dry

Wells completed 53
Production 2830
Dry 26

ARCHER COUNTY

Coffield, Andrade and others 1 ..... dry
Graham, Andrade and others 1 ..... dry
Wilson, Bridwell & Heydrick 7-F 150
Wilson, Camp Oil & Gas Co. 2-B 100
Wilson, Carey Drilling Co. 3 ..... dry
Wilson, Carey Drilling Co. 4 20
Wilson, Donohoo and others 4 100
Heron, Duke and others 1 ..... dry
Parrish, Franklin and others 11..... 135
Wright, Hobbs and others 1 35
White, Humphrey and others 3 ..... dry
Perkins, Kimbrew and others 3 ..... dry
Perkins, Kimbrew and others 4 ..... dry
Mrs. Curry, Maer and others 1 ..... dry
Wilson, Malstedt & Mook 2 ..... dry
Robertson, Magnolia Pet. Co. 2 70
Graham, Norton and others 2 80
Chancellor, Phillips and others 1 15
Wilson, Prairie Oil & Gas Co. 9-E... dry
Campbell, Shamrock Oil Co. 2 60
Harbinson, Shamrock Oil Co. 7 100
Richardson, Shamrock Oil Co. 3 50
Richardson, Shamrock Oil Co. 5 90
Richardson, Shamrock Oil Co. 7 65
Richardson, Shamrock Oil Co. 7-B.... 65
Richardson, Shamrock Oil Co. 8-D... 65
Richardson, Shamrock Oil Co. 3-D 100
Nichols, Simms Oil Corp. 1 100
Kelly, Buie Prod. Co. 1 60
Andrews, Chambers and others 1-B.... 25
Turbeville, Clark and others 2 30
Andrews, Dee Bros. 1 ..... dry
Harbinson, Lowry and others 1 ..... dry
White, Murchison and others 2 60
Campbell, Shamrock Oil Co. 3 ..... dry
Richardson, Shamrock Oil Co. 8-B... 100
Richardson, Shamrock Oil Co. 5-D .... dry
Kinder, Superior Oil & P. Co. 1 100
Richardson, Swastika Oil Co. 5-C .... dry
Kempner, Texhoma Oil & Ref. Co. 4... 50
Orton, The Texas Co. 1 110
Wilson, Bridwell and others 3 30
Jackron, Cannon and others 1 140
White, Dixon and others 3 ..... dry
Logan, Eberke and others 1 ..... dry
Miller, Litchfield and others 4 ..... dry
Wilson, McCarty Oil Co. 4-B ..... dry
Richardson, McLain and others 1 .... dry
Orton, Norwood and others 1 ..... dry
Robertson, Oil Investment Co. 1 ..... dry
White, Face and others 1 ..... dry
Orton, Panhandle Ref. Co. 3 300
Pord, Phillips and others 2 ..... dry
Wilson, Riner and others 9 65
Kempner, Shappell and others 5 ..... dry
Richardson, Shamrock Oil Co. 2-C 100
Nichols, Simms Oil Co. 2 10
White, Allen and others 1 200
Farmer, Archer Oil Corp. 2 ..... dry
Siegle, Gulf Prod. Co. 3 40
Orton, Humble Oil & Ref. Co. 2 300
Rutty, Jones and others 2 ..... dry
Turbeville, Landreth Prod. Co. 1 ..... dry
Zotz, Nantz Oil Co., 1 ..... dry
Browning, Parker and others 1 7
Wilson, Phillips and others 1 170
Richardson, Shamrock Oil Co. 6-D ... 100
White, Tex-O-Kan Oil Co. 1 20

Wells completed 67
Dry 23
Production 3442

YOUNG COUNTY

Driver, Mutual Oil Co. 12 12
Scott, North American Ref. Co. 3-B... dry
Benson, Smith and others 1-A ..... dry
Graham, Heydrick et al 1 ..... dry
Bashara, Keener Oil & Gas Co. 1..... dry
Vaughan, Monroe Prod. Co. 1 ..... dry
McBrayer, Crook and others 1 ..... dry
Cheeves, Eagle Creek Oil Co. 1 ..... dry
Buster, Riley and others 1 ..... dry
Fee, States Oil Corp 1 ..... dry

Wells completed 18
Dry 5
Production 65

STEPHENS COUNTY

Walker, Walker & Caldwell 1 300
Walker, Walker & Caldwell 2 350
Williams, Pearson and others 2 35
Davis, Scott and others 1 25
Keithley, The Texas Co. 10 30
Newman, Walker and others 1 ..... dry
Cobb, Critten and others 5 1035
Cunningham, Glasscock and others 1.. dry
Gardner, Magnolia Pet. Co. 2 350
Jones, Snowden & McSweeney 11 100
Cunningham, Critten and others 2 200
Hudspeth, Marchbanks and others 1 100
Jones, Haile and others 2 ..... dry
Gardner, Magnolia Pet. Co. 1 ..... dry
Parks, The Texas Co. 40-A 5
Lowe, Mid-Kansas Oil & Gas Co. 2-A.. 300
Stoker, Pitzer and others 1 600
Rosenquest, Sun Oil Co. 11-A 15
Cook, Texas Fidelity Oil Co. 1..... dry

Wells completed 19
Production 1345
Dry 5
Gas 1
Gas production 8,000,000

EASTLAND COUNTY

Sneed, Humble Oil & Ref. Co. 3 ..... dry
Gilbert, Andrade and others 1-A ..... dry
Young, Kirk & Brewer 1 25
Westmoreland, Magnolia Pet. Co. 16.. 10
Quiett, States Oil Corp. 3 200
Howard, Haynes and others 1 ..... dry
Sneed, Humble Oil & Ref. Co. 4 ..... dry
Hightower, Panhandle Oil & Ref. 21... 250
Stubblefield, Thornell and others 1... 250
Wright, Barkley and others 5 20
Waggoner, Dixie Oil Co. 1 75
Sneed, Continental Oil Co. 1 ..... dry
Johnson, Dougherty and others 1 .... dry

Wells completed 13
Production 365
Dry 1
Gas 1
Gas production 11,000,000

WILDCATS

Clay County—
Bullington, D'Yarmett et al 20
Stine, Cumley et al 1 100

Carson County—
McConnell, Waggoner et al 1 ..... gas

Montague County—
Cranshaw, Texon Oil Co. 1 ..... dry

Gray County—
Motse, Holmes et al 1 ..... dry

Hutchinson County—
Bivens, Producers & Refiners 1-B..... 75

Potter County—
Bivens, Producers & Refiners, 2-A..... gas

Callahan County—
Cathey, Dutton et al 4 ..... dry
Isenhower, McBride et al 1 ..... dry
Cathey, Sherrin et al 4 ..... dry
Cathey, Tidal Oil Co. 4 25

Brown County—
Newton, Gillman et al 4 100
Prather, Calbro Oil Synd. 2 50
Fomby, Critten et al 1 ..... dry
Gains, Mahlstedt & Mook 1 ..... dry
Gains, Simms Oil Co. 1 5

Comanche County—
Sloan, Kirk & Brewer 1 10
Martin, Spratt et al 1 ..... dry
Palo Pinto County—
Slimp, Domestic Oil Co. 1 ..... dry
Holly, Cunningham et al 1 ..... dry
Thornton, Talbert et al ..... gas
Newman, Welch et al 1 ..... dry
Bradford, Upham Gas Co. 1 ..... dry
Fee, Strawn Coal Co. 1 110
Slemmons, Yukon Oil Co. 1 ..... dry
Shackelford County—
Miles, Humble O. & R. Co. 1 150
Boyett, Miller Bros. 2 75
George, Magnolia Pet. Co. 3 265
Reagan County—
University, Associated Oil Co. 1 ..... dry
University, Big Lake Oil Co. 6 ..... dry
University, Big Lake Oil Co. 7 ..... dry
University, Big Lake Oil Co. 11 2940
Walters, Texas Pacific C. & O. Co. 1... dry
Mitchell County—
Morrison, California Co. 1 ..... dry
Miller, California Co. 3 150
Miller, California Co. 4 60
Morrison, California Co. 8 140
Morrison, California Co. 9 36
Throckmorton County—
Elliott, Hall Tex Co. 1 ..... dry
Reynolds, Texhoma O. & R. Co. 1..... dry

Wells completed 40
Production 4280
Dry 19
Gas 3
Gas production 69,000,000

BURKBURNETT-HIRSCHI

Rigs
Willis, Dew et al 1.
Daniels, the Grace Oil Co. 4-B.
Walling, Gresham et al 1.
Sheldon, Sheldon et al 4.
Donohoe, White et al 2.
Wells Drilling
Weath, Cochran et al 1.
Jenne, Darr et al 1.
Roller, Griffith Prod. Co. 6.
Meyers, Keuhn et al 1.
Treece, Magnolia Pet. Co. 7.
Beach, Magnolia Pet. Co. 6.
Donohoe, Pace et al 1.
Rexford, Texhoma O. & R. Co. 1-B.
Roberts, Wilson et al 1.
Rigs, 5; wells drilling, 9; total, 14.

WICHITA AND WILBARGER

Rigs
Burnett, Burnett Ranch Oil Co. 5.
Rois, Burton et al 1.
Pierce, Empire G. & F. Co. 4.
Waggoner, Eureka Prod. Co. 11.
Parenti, Ferguson et al 1.
Jeff Waggoner, Gwynn et al 1.
Allingham, Herford Oil Co. 12.
Hodges, Carter et al 1.
James, Johnson et al 1.
McCarty, Lee et al 3.
Fisher, Myers et al 1.
Nance, Ryan Pet. Co. 24.
Peeler, Bower et al 6.
Maer, Petroleum Prod. Co. 6.
Wells Drilling
Fisher, Baldwin et al 1.
Henson, Brewer et al 1.
Burnett, Burnett Ranch Oil Co. 7.
Douglas, Camp O. & G. Co. 11-B.
Jeff Waggoner, Culberson et al 27.
Pierce, Empire G. & F. Co. 5.
Burnett, Gordon Oil Co. 1.
Burnett, Gulf Prod. Co. 24-A.
Collett, Gulf Prod. Co. 9.
Burnett, Humble O. & R. Co. 3-B.
Blagg, Jackson et al 1.
McCarty, Lee et al 2.
Henson, L. J. K. Oil Co. 1.
Douglas, Magnolia Pet. Co. 9.
Waggoner, Magnolia Pet. Co. 7.
W. T. Waggoner, Magnolia Pet. Co. 37-A, 38-A, 3-B.
Pere Waggoner, Magnolia Pet. Co. 3.
McCarty, Panhandle O. & R. Co. 6.
Burnett, Perkins et al 8.
Nance, Ryan Pet. Co. 23.
Waggoner, Rio Bravo Oil Co. 7-A.
McCarty, United Central Oil Corp. 10.
Jennings, United Prod. Co. 5.
Mangold, Dee et al 1.
Peeler, Gardner et al 2.
Love, Parker Bros. 1.
Mrs. Murray, United Central Oil Corp. 1.

WILBARGER COUNTY

Rigs
Dill, Bridwell et al 1.
Wells Drilling
Bowers, Castleberry et al 1.
Dill, Church et al 1.
Dill, Dill Farm Oil Co. 1.
Smith, Hart et al 1.
Castleberry, Herring et al 1.
H. & T. C., Magnolia Pet. Co. 64.
Waggoner, Noble Oil Co. 1.
Davis, Pigg et al 1.
Zipperly, Tex Wyoming Oil Co. 1.
Wharton, Thelma Wells 1.
Rigs, 15; wells drilling, 39; total, 54.

ARCHER COUNTY

Rigs
Andrews, The Texas Co. 1.
White, Allen et al 2.
Taylor, Atlantic Oil Co. 1.
Waggoner, Bagley Oil Co. 1.
Farmer, Brader et al 2.
White, Carter et al 2.
Lyles, Carter et al 1.
Turbeville, Cline et al 1.
K. & K., Electra Gulf Oil Co. 1.
Ragle, Knight & Hines 5.
Marwitz, Lanning et al 1.
Logan, McKenzie et al 1.
Wilson, Murchison et al 1.
Prideau, Nicholson et al 1.
Wilson, Oil Investment Co. 1.
Harbison, Shamrock Oil Co. 8.
White, Tex-O-Kan Oil Co. 2.
Wells Drilling
Andrews, Archer Duke Oil Co. 1.
Wilson, Barnes et al 2.
Lyles, Baylkatt et al 1.
Perkins, Benninger et al 1.
Falls County School Lands, Boller et al 1.
Falls County School Lands, Camp O. & G. Co. 1.
Wilson, Camp O. & G. 3-B.
Parrish, Carter et al 1.
Richardson, Chenault et al 9, 10.
Miller, Clark et al 5.
Farmer, Cooper et al 1.
Rankins, Daniels et al 1.
Miller, Everett et al 1.
Wilson, Griswold Oil Corp. 3-D.
Brown, Powell et al 1.
Parrish, Jeffries et al 1.
Ragle, Knight and Hines 3, 4.
Oil Investment Co., Landreth Prod. Co. 1.
Turbeville, Major Oil Co. 4.
Robertson, McGregor et al 3, 4.
White, McLain et al 1.
Wilson, McPhail et al 1.
Parrish, Magnolia Pet. Co. 1.
Robertson, Magnolia Pet. Co. 3.
Richardson, Murchison et al 3, 4.
Graham, Norton et al 3.
Nichols, R. & F. Oil Co. 2.
Logan, Saunders et al 1.
Campbell, Shamrock Oil Co. 4, 5.
Richardson, Shamrock Oil Co. 9-B, 3-C, 4-D, 7-D, 8-D, 9-D.
Albright, Sheppard et al 1.
Miller, Shipely et al 1.
Nichols, Staley et al 2.
Farmer, Strohn et al 1.
Reilly, Sunshine State O. & R. Co. 1.
Richardson, Swastika Oil Co. 6-C.
K. & K., Texhoma O. & R. Co. 5, 6.
Mrs. Carter, Tucker et al 5.
Creba, Whitney et al 1.
Jackson, Willis et al 4.
Wilmot, Wilmot Farm Oil Co. 6, 7.
Wilson, Woodburn Oil Corp. 8, 16.
Rigs, 17; wells drilling, 54; total, 71.

YOUNG COUNTY

Rigs
Mayes, Burton et al 1.
Johnson, Herbert Oil Co. 1.
Cheney, Monroe Prod. Co. 1.
Wells Drilling
Graham, Bashara et al 1.
Vernon, Bryan et al 1.
Rubinkoenig, Carter et al 1.
Johnson, Dunn et al 1.
Mahoney, Foster et al 2.
Graham, Humble O. & R. Co. 1.
Baldwin, Litchfield et al 1.
Durham, McLain et al 1.
Johnson, McGarr et al 1.
Scarborough, McGarr et al 1.
Hune, Miller et al 1.
Robertson, O'Neil et al 1.
Graham, Reed et al 1.
Benson, Russell et al 2.
Stoffers, Seaboard O. & G. 1.
Willis, Simms Oil Co. 1.
Stovall, Stovall et al 2.
Keithley, Union Oil Co. 1-A.
Rigs, 3; wells drilling, 18; total, 21.

STEPHENS COUNTY

Rigs
Webb, Hoffer Oil Corp. 1.
Lowe, Mid-Kansas O. & G. 3-A.
Caldwell, Prairie O. & G. Co. 2.
Martin, Texas Consolidated Oil Co. 6.
Rogers, Texas Pacific C. & O. Co. 7.
First National Bank, Walker et al 4.
Mc Dype, Brumley et al 1.
Polan, Carter et al 1.
Do d, Haile et al 1.
Brown, Magnolia Pet. Co. 7.
Robertson, McLester et al 1.
Henderson, Scott et al 1.
Wells Drilling
Hudspeth, Brown et al 1.
Cobb, Critten et al 6.
Brown, Liner et al 2.
Lowe, Mid-Kansas O. & G. Co. 3-A Acct. 1.
Lowe, Mid-Kansas O. & G. Co. 4-A Acct 1.
Richardson, Mid-Kansas O. & G. Co. 3.
Crudington, Pierce et al 1.
Atkins, Prairie O. & G. Co. 15.
Caldwell, Prairie O. & G. Co. 1.
W. & C. Raney et al 2.
Sweeney, Rochelle et al 2-A, 3-A.
Couger, Swasey et al 2.
Echols, Swensondale Oil Co. 1.
Rogers, Texas Pacific C. & O. Co. 5.
Cobb, Weekley Pet. Co. 1.
Brown, Brown et al 4.
Gardenshire, Christie et al 1.
McClesskey, Ice et al 1.
Stoker, Lewis Oil Co. 2.
Drake, Little et al 2.
Brown, Magnolia Pet. Co. 2, 5, 6, 9.
Taylor, Magnolia Pet. Co. 1.
Stoker, Prairie O. & G. Co. 1.
Jones, Republic Prod. Co. 4.
McClesskey, Seaboard O. & G. Co. 1.
Henderson, Sinclair Oil Co. 9.
Jones, Snowden et al 1.
Sipes, States Oil Corp 1.
Houston, Swensondale Oil Co. 1.
Heathley, The Texas Co. 8.
Hand, Texas Pacific C. & O. Co. 1.
Winston, Texas Pacific C. & O. Co. 1-B.
Williams, Thompson et al 4.
Adams, Triplehorn et al 1.
Rigs, 12; wells drilling, 38; total, 50.

EASTLAND COUNTY

Rigs
Brashear, Dixie Oil Co. 1.
Wells Drilling
Lyerla, Arkansas Fuel Oil Co. 1.
Watson, Brothers Oil Co. 1.
Fox, Donnelly et al 1.
Fox, Hamilton et al 1.
Edison, Magnolia Pet. Co. 4.
Gailey, McLester et al 1.
Webb, Panhandle O. & R. Co. 6.
Moles, Parsons et al 1.
Parton, Pennok Oil Co. 7.
Fox, Williamson et al 3.
Amis, Bobo et al 1.
Matthews, Continental Oil Co. 2.
McDonald, Grisham et al 1.
White, McBride et al 1.
Brunett, Rorenfield et al 1.
Ramsey, The Texas Co. 1.
Jones, Turner et al 3.
Rigs, 1; wells drilling, 17; total, 18.

WILDCATS

Wells Drilling
Baylor County—
Showers, Dallas Oil Co. 1.
Turbeville, Hapgood et al 1.
Robertson, Independent Oil Co. 1.
Mills, Magnolia Pet. Co. 1.
Fancer, Moore et al 1.
Wells Drilling
Clay County—
Stine, Bowen et al 1.
Stine, Cumley et al 1.
Scott, D'Yarmett et al 1.
Worsham, Gulf Prod. Co. 4.
Howell, Knox-Finley Dev. Co. 1.
Panhandle Co., Lone Star Gas Co. 10, 11.
Scaling, Scaling Oil Corp. 1.
Boddy, Shelton Oil Co. 1.
Johnson, Texland Prod. Co. 1.
Stine, Verschoyle et al 1.
Wells Drilling
Foard County—
Halcell, Landreth Prod. Co. 1.
Wells Drilling
Montague County—
Gist, The Texas Co. 2-A.
Salmon, Boyd Oil Co. 1.
Benton, Gulf Prod. Co. 1.
Howard, Mascho Oil Co. 1.
Summerour, Montague Oil Synd. 2.
Bolding, Texhoma O. & R. Co. 1.
Rigs
Throckmorton County—
Burkhalter, Cragin et al 1.
Housley, Kelsey et al 1.
Wells Drilling
Stubblefield, Humble O. & R. Co. 1.
Broiles, King et al 1.
McKnight, Shamrock Oil Co. 1.
Rigs
Carson County—
Burnett, Crosby et al 1.
Wells Drilling
Burnett, The Texas Co. 4.
Mary Burnett, The Texas Co. 1, 2.
Burnett, American Ref. Co. 2.
Burnett, the Dancinger Oil Co. 1.
Burnett, the Gulf Prod. Co. 1-A, 4-A.
Burnett, Olson Bros. 1.
Burnett, Producers & Refiners Oil Co. 1.
Burnett, Silk et al 1.
Burnett, Skelly Oil Co. 1.
Wells Drilling
Cottle County—
Dulaney, Woodley et al 1.
Wells Drilling
Gray County—
Wilson, Wilcox O. & G. Co. 1.
Saunders, The Texas Co. 1.
Rigs
Hutchinson County—
Johnson, Barnum et al 1.
Bivens, Producers & Refiners Oil Co. 2.
Smith Capers, Western Enterprise Oil Co. 1.
Wells Drilling
Cockrell, Gulf Prod. Co. 1.
Whitenburg, Gulf Prod. Co. 1.
Kingland, Twin Six Oil Co. 1.
Whitenburg, Wilson et al 1.
Rigs
King County—
Spikes, Darmitza Oil Co. 1.
Wells Drilling
Moore County—
Masterson, Producers & Refiners Oil Co. 1.
Warrick, Amarillo Oil Co. 1.
Wells Drilling
Roberts County—
Ledrick, Big Bend Oil Co. 1.
Wells Drilling
Wheeler County—
George, Cosden et al 1.
Bowers, Woodley et al 1.
Rigs
Shackelford County—
Poindexter, Landreth Prod. Co. 13, 15.
Wells Drilling
Poindexter, Cerf et al 1.
Sedwick, Kellogg et al 1.
Lynch, Landreth Prod. Co. 3.
Lynch, McMahon et al 2.
Rigs
Palo Pinto County—
Mosley, Broderick et al 1.
Stinger, Phillips et al 1.
Strawn, Strawn Coal Co. 2.
Wells Drilling
Mosley, Guarantee Royalty Co. 1.
Slimp, Talbort et al 1.
Wheeler, Owens et al 2.
Jones, Craig et al 1.
Rigs
Callahan County—
Cathey, Dutton et al 5, 7.
Finley, Hickey et al 2.
Crane, Pruitt et al 1.
Wells Drilling
Forbes, Bryant et al 1.
Moore, Dudley Oil Co. 1.
Snider, Kellogg et al 1.
Bailey, Prewitt et al 1.
Betcher, Prewitt et al 1.
White, Prewitt et al 1.
Windham, Prewitt et al 1.
Albin, Poe and Wilson 6.
Allen, Shackelford et al 1.
Isenhower, The Texas Co. 1.
Biggerstaff, Texas Pacific C. & O. Co. 1.
Wells Drilling
Mitchell County—
Brown, Harris et al 1.
Coleman, Humphrey et al 1.
Morrison, California Co. 10, 11.
Abrams, California Co. 6.
Rigs
Brown County—
Chambers, Curry et al 1.
Wells Drilling
Wheeler, Anderson et al 1.
Cox, Avery et al 3.
Newton, Gillman et al 5.
Moore, Gump et al 1.
Gafford, Mahlstedt & Mook 1.
Gaines, Mahlstedt & Mook 2.
Chambers, Moore et al 1.
Teston, Moore et al 1.
Westerman, Moore et al 1.
Baxter, Poe and Wilson 1.
Wells Drilling
Comanche County—
Moorman, Ghormley et al 1.
Johnson, Poe and Wilson 1.
Rigs
Reagan County—
University Land, Arkansas Fuel Oil Co. 1.
University Land, Big Lake Oil Co. 12.
University Land, Crockett Drilling Co. 1.
University Land, Sparks et al 1.
Wells Drilling
University Land, Dunning et al 1.
University Land, Texon Land & Development Co. 1, 2.
Ingham, Wrightsman et al 1.
Rigs, 21; wells drilling, 89; total, 110.

N. LOUISIANA-ARKANSAS

Summary of Field Operations

Districts—	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Union County, (Smackover & El Dor.)	70	12,465	7	2	15	68	83
Ouachita Co., (N. Smack'r)	47	3,581	0	1	17	48	65
Stephens Field, (Columbia & Ouachita Co.)	6	130	0	0	3	11	14
Nevada Co. ..	3	200	1	1	4	9	13
Bellevue	4	15	1	1	0	1	1
Caddo	5	42	1	0	0	13	13
Claiborne . ..	1	0	1	0	2	4	6
Cotton Valley	16	14,285	2	2	8	13	21
De Soto	1	0	0	1	0	0	0
Red River ...	0	0	0	0	0	0	0
La. wildcats..	26	0	9	17	4	43	47
Ark. wildcats.	5	0	5	0	3	24	27
August	184	30,718	27	25	56	224	290
July	182	28,035	33	14	62	332	394
Difference..	2	2,683	6	11	6	98	104

UNION COUNTY, ARKANSAS

Wells Completed

19-16-15	Wilson, Amerada Pet. Corp. 1	300
41-16-15	Alphin, Ark. Fuel Oil Co. 4	75
25-16-16	Hancock, Caldwell et al 3....	800
19-16-15	Wilson, Black Duke Oil Corp. 1	200
19-16-15	Powell, Bond, trustee 3.....	300
23-16-16	Burton, Cherokee Pet. Co. 3....	400
19-16-15	Burton, Cherokee Pet. Co. 4..	300
25-16-16	Burton, Cherokee Pet. Co. 5..	500
23-16-16	Burton, Cherokee Pet. Co. 6..	400
2-18-16	Morgan, Constantin Oil & Ref. Co. 1	dry
3-16-15	Graves, Crawford & Sebastian, 4	gas
11-16-15	Giller, Crawford & Sebastian 7	40
13-16-18	Smith, Cross et al 2.....	150
20-16-15	Alphin, Crosbie J. E., trustee 4	15
25-16-16	Burton, Dunn Oil Co. 1.....	600
18-16-15	Smith, Dunn Oil Co. 4.....	100
24-16-16	Hilton, Eason et al 1.....	600
24-16-16	Hilton, Eason et al 2.....	350
8-16-16	Childs, Federal Pet. Co. 2....	125
10-16-15	Ballard, Federal Pet. Co. 3..	gas
1-16-17	Staples, Gilliland Oil Co. 4....	65
2-16-15	Alphin, Gulf Refining Co. 8...	65
13-16-15	Hedgewood, Gulf Ref. Co. 2..	90
6-16-16	L. Werner, Gulf Ref. Co. 19..	65
6-16-16	L. Werner, Gulf Ref. Co. 21	70
6-16-16	Goff, Halliday, trustee 4.....	85
22-16-15	Adcock, Humble O. & R. Co. 2	200
25-16-16	Burton, Humble O. & R. Co. 1	250
25-16-16	Burton, Humble O. & R. Co. 2	350
25-16-16	Burton, Humble O. & R. Co. 4	300
1-18-14	Cordell, Humble O. & R. Co. 1	dry
18-16-15	S. J. Smith, Humble O. & R. Co. 3	100
3-16-15	Williams, Kinnebrew et al 3..	150
29-17-14	Morgan, Imperial O. & G. Co. 1	200
21-18-15	Pendleton, Leonard, C. H., 1	dry
2-16-17	Smith, Magnolia Pet. Co. 1....	dry
2-16-17	I. Smith, Magnolia Pet. Co. 1	dry
25-16-16	Burton, Meek, trustee, 2.....	500
19-16-15	Scott, Ohio Oil Co. 1.....	100
23-16-15	Alphin, Page et al 4.....	100
17-16-15	S. D. Cook, Preston Oil Co. 2..	85
20-16-15	Berry, Pure Oil Co. 5.....	30
21-16-15	M. Hays, Pure Oil Co. 3.....	200
29-16-15	L. M. Hicks, Pure Oil Co. 2..	200
29-16-15	Lindsay, Pure Oil Co. 1.....	70
29-16-15	Lindsay, Pure Oil Co. 2.....	85
17-16-15	Massey, Pure Oil Co. 3.....	100
6-16-16	Rice, Riggs Drilling Co. 1....	125
6-16-16	Rice, Riggs Drilling Co. 2....	120
8-16-15	Flenniken, Roxana Pet. Corp. 1	80
1-16-17	Hodges, Rutledge, W. E., trustee 1.....	45
7-16-15	Sarruth, Rutledge, W. E., trustee 1.....	35
25-16-16	Burton, Simon et al 1.....	300
19-16-16	Wilson, Sun Co. 4.....	65
1-16-17	Neely, Sutherland et al 2.....	100
2-16-15	Alphin, Standard Oil Co. 6....	100
4-16-16	J. S. R. Saxon, Standard Oil Co. 1.....	dry
25-16-16	Moore, Staves Oil Co. 2.....	500
24-16-16	Smith, Sure Oil Co. 7.....	135
24-16-16	Hedgewood, The Texas Co. 5..	400
24-16-16	Hedgewood, The Texas Co. 6	300
24-16-16	Hedgewood, The Texas Co. 7..	300
24-16-16	Hedgewood, The Texas Co. 8	75
6-16-14	Cargile, Umstead et al 1.....	dry
15-16-15	Craig, United Central Oil Corp. 1	90
25-16-16	Burton, United Central Oil Corp. 1	300
24-16-16	Alphin, Unity Pet. Co. A-5...	200
24-16-16	Alphin, Unity Pet. Co. B-3....	500
23-16-16	Burton, Unity Pet. Co. 1.....	60
23-16-16	Moore, Waxler et al 2.....	175

Wells completed 70
Production 12465
Dry 7
Gas 2
Gas production 60,000,000

OUACHITA COUNTY

26-15-17	Fee, Sanderson et al 3	35
26-15-17	Fee, Sanderson et al 4.....	40
30-15-16	McRea, Arkansas Invincible Oil Co. 5.....	80
31-15-16	Patton, Arkansas Invincible Oil Co. 8.....	35
23-15-17	Reynolds, Arkansas Drilling Co. 3.....	60
24-15-17	Brierton, Atlantic Oil Prod. Co. C-1	60
24-15-17	Brierton, Atlantic Oil Prod. Co. C-3	40
26-15-17	Smith, Atlantic Oil Prod. Co. 4	75
25-15-17	Wells, Atlantic Oil Prod. Co. A-4	30
4-16-15	Murphy, Clark & Melat 1.....	gas
33-15-15	Berry, Crosbie, J. E. 1.....	160
33-15-15	Berry, Crosbie, J. E. 2.....	150
33-15-15	Berry, Crosbie, J. E. 3.....	130
28-15-16	School Yard, Dr. Clark 1....	45
26-15-17	Anderson, Farris, B. L. 1.....	40
22-15-16	Cramer, Forest Oil Co. 16....	110
27-15-16	Cramer, Forest Oil Co. 17....	200
25-15-17	McRae, Gilliland Oil Co. 2....	30
25-15-17	McRae, Gilliland Oil Co. 3....	30
36-15-17	W. A. Smith, Gilliland Oil Co. 1	125
25-15-17	Wells, Gilliland Oil Co. N-4..	45
25-15-17	Wells, Gilliland Oil Co. S-2..	30
36-15-17	Wells, Gilliland Oil Co. S-3..	80
28-15-16	Hardin, Invaders Oil Co. 2....	50
26-15-17	Page, Lee, trustee 1.....	60
32-16-16	Patton, Leon et al 2.....	35
30-15-16	Hardin, Magnolia Pet. Co. 1..	50
31-15-16	Smith, Magnolia Pet. Co. B-8..	90
28-15-16	Hardin, Mercury Oil Co. 5....	65
28-15-16	McElroy, Majestic-Smackover Oil Co. 2.....	100
28-15-16	Mullin, Marr Oil Corp. 6.....	80
26-15-17	Anderson, Nelson, R. B. 4....	50
25-15-17	Reynolds, Palmetto Oil Co. 4..	50
33-15-15	Hearnesberger, Phillips Pet. Co. 5	200
30-15-16	Gaskins, Simms Oil Co. 3....	300
26-15-17	Jeffus, Staves et al 1.....	80
26-15-17	Jeffus, Staves et al 2.....	40
21-15-16	Hughes, Sutton et al 16.....	200
28-15-16	Hughes, Sutton et al 17.....	95
20-15-16	Minor, Sutton et al 2.....	125

32-15-15 Berry, The Texas Co. 5..... 120
30-15-16 La Grone, The Texas Co. 9.... 75
28-15-16 Stringfellow, The Texas Co. 5.. 70
28-15-16 Stringfellow, The Texas Co. 7 75
23-15-17 Anderson, Whittiken et al 2... 50
29-15-16 Shirey-Berg, Whittiken et al 1 50
30-15-16 Watts, White et al 5..... 15

Wells completed 47
Production 3581
Dry 0
Gas 1
Gas production 50,000,000

OUACHITA COUNTY
STEPHENS DISTRICT

31-15-19 Bettis Hall, Gulf Refining Co. 1 20
31-15-19 Bettis Hall, Gulf Refining Co. 2 25

Wells completed 2
Production 45
Dry 0
Gas 0

COLUMBIA COUNTY
STEPHENS DISTRICT

14-15-20 Murphy, Atlantic Oil Pro. Co. 4 10
14-15-20 Murphy, Atlantic Oil Pro. Co. 6 15
36-15-20 W. Jones, Gulf Refining Co. 3 30
36-15-20 Rinehart, Magnolia Pet. Co. 1 30

Wells completed 4
Production 85
Dry 0
Gas 0

NEVADA COUNTY

10-14-21 Womack, Autry et al 2..... 200
10-14-21 McKinney, Smitherman & McDonald 3..... gas
10-14-21 Womack, Zing et al 1..... dry

Wells completed 3
Production 200
Dry 1
Gas 1
Gas production 8,000,000

BELLEVUE, BOSSIER PARISH

23-19-11 Bliss & Weatherbee, Bliss & Weatherbee F-1..... 5
23-19-11 Bliss & Weatherbee, Bliss & Weatherbee F-2..... gas
15-19-11 Bliss & Weatherbee, Humble Oil & Refining Co. 27..... 10
16-19-11 Bell, Standard Oil Co. 12..... dry

Wells completed 4
Production 15
Dry 1
Gas 1
Gas production 1,500,000

CADDO PARISH

23-21-15 Caddo Mineral Land Co., Dixie Oil Co. 8..... 18
14-21-15 Robertson, Dixie Oil Co. 62.. 14
22-20-16 Ferry Lake, Gulf Refining Co. 218 ..... gas
13-21-15 Noel-Keystone, Ranger Dev. Co. 6 ..... dry
22-21-15 Raines, Mutual Oil Co. 10..... 5

Wells completed 5
Production 42
Dry 1
Gas 1
Gas production 3,000,000

CLAIBORNE PARISH

30-21-17 Oakes, White Oil Corp. 18.... dry

COTTON VALLEY

2-21-10 Logan, Belchie & Laskey 1.... dry
14-21-10 S. J. Merritt, Fortuna Oil Co. 2 8004
14-21-10 S. J. Merritt, Fortuna Oil Co. 3 3000
11-21-10 A. J. Hodges, Gulf Refining Co. 2 400
14-21-10 Babb, Humble Oil & Ref. Co. 3 100
14-21-10 Babb, Humble O. & R. Co. 4.. 100
11-21-10 A. J. Hodges, Humble O. & R. Co. 3 1500
14-21-10 Merritt, Humble O. & R. Co. 2 200
14-21-10 R. D. Webb, Humble O. & R. Co. 1..... 10
21-21-10 Crichton, Invincible Oil Co. 1 gas
11-21-10 A. J. Hodges, Invincible Oil Co. 2 200
14-21-10 Merritt, Invincible Oil Co. 3.. 75
14-21-10 Merritt, Invincible Oil Co. 4.. 300
14-21-10 Pine Woods Lumber Co., Morefield & Tanner 1..... dry
22-21-10 McInnis, Standard Oil Co. 1.. gas
14-21-10 Merritt, Woodley Pet. Co. 3.... 400

Wells completed 16
Production 14285
Dry 2
Gas 2
Gas production 70,000,000

DE SOTO PARISH
Wells Completed

32-12-11 Mathews, Tarver et al 3..... gas

LOUISIANA WILDCATS
Bossier Parish—

8-16-11 McDade, Standard Oil Co. 6... dry
16-30-11 Hamilton, Woodley & Collins 1 dry
Claiborne Parish—
36-22- 7 Gandy, El Dorado Chief Oil Co. 1..... dry
10-20- 5 Loyd, Standard Oil Co. 1..... dry
5-21- 5 Ferguson, Triangle Drilling Co. 1 ..... dry
Morehouse Parish—
20-20- 5 Erwin, Carson Carbon Co. 2.... gas
53-20- 4 Southern, Amalgamated Oil Co. 2 ..... gas
16-20- 5 Fubanks, Feazel, W. C., 1.... gas
34-20- 5 Snyder, Feazel, W. C. 1..... gas
17-20- 5 Spyker, Humphreys Carbon Co. 1 ..... gas
32-19- 6 Chess Wymond, Richland Oil & Gas Co. 1..... dry
Ouachita Parish—
6-19- 5 Fee, Cosoms Carbon Co. 1.... gas
54-17-3e Dixie Lbr. Co., Haynes et al 2 dry
33-20- 5 Fee, Ladel et al 27..... gas
18-19- 5 Collins, Oil Fields Exploration Co. 1..... gas
12-19- 4 Grayson, Palmer Corp. 1..... gas
4-19- 5 Lieber, Palmer Corp. 2..... gas
31-19- 5 Fee, Southern Carbon Co. 31 gas
31-19- 5 Fee, Southern Carbon Co. 33 gas
31-19- 5 Fee, Southern Carbon Co. 34 gas
4-19- 5 Ladel, The Texas Co. 1..... gas
36-20- 4 Cole, United O. & G. Co. 1.. gas
4-18- 5 Fee, West Virginia Oil & Gas Co. 4..... gas

Union Parish—
17-23-1e Frost Johnson Lbr. Co., Davidson & Palmer 1..... dry
35-22-2w Pryor Estate, Johnson et al 1 dry
32-21-4e Grayling Lumber Co., The Texas Co. 1..... gas

Wells completed 26
Production 0
Dry 9
Gas 17
Gas production 198,500,000

ARKANSAS WILDCATS
Grant County—
18- 6-13 Chicago Land & Timber Co., The Texas Co. 3..... dry
Columbia County—
12-17-22 Ray-Fullenwelder, Arkoil Co. 1 dry
2-18-22 Baker-Joiner, Amerada Pet. Co. 1 ..... dry
Nevada County—
11-12-23 Eaves, Murry et al 1..... dry
12-15-22 Perry, Burnham et al 1..... dry

Wells completed 5
Production 0
Dry 5

UNION COUNTY, ARKANSAS
Rigs

8-16-15 Bilyew, Anderson et al 1.
7-16-16 Carroll, Chambles Drilling Co. 1.
31-15-16 Stout Lumber Co., Dyer Bros. 2.
1-16-17 Ponder, Estes et al 1.
1-16-17 Neely, Estes et al 2.
22-18-14 Terrell, Lemond et al 1.
3-16-15 Fee, Lyell et al 5.
16-16-15 McRae, McPherson Oil Co. 3.
25-16-16 Burton, Meek, trustee 3.
14-16-15 Ballard, Ohio Oil Co. 3.
5-16-16 Saxon, Smitherman-McDonald B-4.
6-16-15 McClanahan, Standard Oil Co. of La. 10.
25-16-16 Burton, Star Oil Co. 3.
25-16-16 Burton, United Cent. O. Corp. 3, 4.
Wells Drilling
1-16-17 L. Werner saw mill, Arkansas Drilling Co. 3.
29-16-15 Dumas, Arkansas Fuel Oil Co. 1.
8-16-16 Murphy, J. E., Arkansas Fuel Oil Co. 2.
36-16-16 Murphy, Beggs et al 1.
3-18-12 Stegall, Bonderant et al 1.
9-18-12 Tuberville, Bonderant et al 1.
35-16-15 Murphy, Bauxite Oil Co. 1.
25-16-16 Burton, Cherokee Pet. Co. 7.
19-18-15 Alphin, J. W. Clark 2.
13-16-16 Smith, Cross et al 3.
31-15-16 Stout Lumber Co., Dyer Bros. 1.
12-16-16 Kane, Field Operators Co. 1.
25-16-16 Burns, Freman et al 1.
1-16-17 Staples, Gilliland Oil Co. 3.
25-16-16 Burton, Gulf Refining Co. A-1.
20-16-15 Cook, Harris et al 1.
25-16-16 Murphy, Hatcher et al 1.
6-16-16 Goff, Holliday, trustee 5.
32-15-16 Saxon, Humble Oil & Ref. Co. 3.
29-17-14 Morgan, Imperial Oil & Gas Co. 2.
16-16-16 Saxon, Lanier et al 1.
8-16-15 Bradford, Magnolia Pet. Co. 1.
13-16-17 Campbell, Magnolia Pet. Co. 2.
13-16-17 Campete-Campbell, Magnolia Pet. Co. 2.
3-16-15 Graves, McFarland et al 1.
29-17-14 Smith, Myerscough et al 3.
19-16-15 Roberts, Montgomery et al 1.
19-16-15 Scott, Ohio Oil Co. 2.
4-16-16 Saxon, Pan American Oil Co. A-4.
11-16-15 Alphin, Phillips Petroleum Co. B-2.
7-16-15 Tatum, Plateau Oil Co. 1.
20-16-16 Burns, Pure Oil Co. 2.
7-17-14 Stevens, Ray Drilling Co. 1.
9-16-16 Meakin, Reliance Drilling Co. 1.
23-16-15 Murphy, Sam Richardson 3.
6-16-16 Rice, Riggs Drilling Co. 3.
23-16-16 Hicks, Smitherman-McDonald 1.
2-16-15 Alphin, Standard Oil Co. of La. 4.
3-16-15 Alphin, Standard Oil Co. of La. 8
9-16-15 Alphin, Standard Oil Co. of La. 14.
22-16-15 Lingelbach, Standard Oil Co. of La. 8.
1-16-17 Smith, Sun Co. 3.
1-16-17 Stout Lumber Co., Tarver et al 1.
33-17-13 Burnside, E. T. Tater, trustee 1.
25-16-16 Burton, United Central Oil Corp. 2.
15-16-15 Craig, United Central Oil Corp. 2.
1-16-17 Hodges, Wright et al 2.
19-16-15 Henderson, Schuler et al 3.
Shut Down
14-19-11 Union Saw Mill, Beery et al 1.
34-17-12 Clark, Bonderant et al 1.
21-17-15 Miller, Bradley & Cazart 1.
14-16-16 Thorntotn, Coker Drilling Co. 1.
13-16-16 Giller, Crawford & Sebastian 2.
22-16-16 Goodwin, Dillon et al 1.
11-19-12 Teale, Harrell et al 1.
2-18-16 Morgan, Hicks et al 1.
23-16-16 Dumas, Hunt et al 1.
9-16-15 Murphy, Keene & Woolf 1.
17-16-15 Allgulf, Lion Oil & Refining Co. 4.
5-16-15 Flenniken, Morris Drilling Co. 6.
28-16-15 Dumas, Nikander et al 1.
30-16-16 Alphia A-1, Page et al.
4-16-16 Saxon, C. L., Pan American Oil Co. B-1, B-2.
6-16-16 Meek, Rutledge, W. E., trustee 1.
5-16-16 C. L. Saxon, Standard Oil Co. of La. B-2.
12-16-17 Hodges, Steele Oil Co. 3.
20-16-14 Goodwin, Traffic Oil Co. 1.
1-16-17 Johnson, Wall et al 1.
Rigs, 15; wells drilling, 68; total, 83.

OUACHITA COUNTY, ARKANSAS
Rigs

34-15-15 Snyder, Arkansas Fuel Oil Co. 4.
30-15-16 Myer Estate, Arkansas Invincible Oil Co. 3.
25-15-17 Smith, Atlantic Oil Prod. Co. 1.
25-15-17 Wells, Atlantic Oil Prod. Co. B-2, B-3, B-5.
31-15-17 Burton, Giles, trustee 1.
36-15-17 Smith, W. A., Gilliland Oil Co. 4.
30-15-15 LaGrone, Green et al 2.
29-15-16 Fincher, Hazen et al 3.
32-15-16 Myar estate, Keene & Woolf 2.
26-15-17 Brown, Magnolia Pet. Co. 1.
30-15-15 Berg Bros., Simms Oil Co. E-1.
30-15-16 Johnson, Pure Oil Co. 1.
30-15-16 LaGrone, Stumph and Todd 4.
34-15-15 Joyce, Sure Oil Corp. 2.
28-15-16 Hughes, Sutton et al 12.
28-15-16 McElroy, Sutton et al 4.
Wells Drilling
31-15-16 Patton, Arkansas Invincible Oil Co. 9.
25-15-17 Jeffus, Atlantic Oil Producing Co. 4.
13-15-17 Copenhaven, Bray-Hawthorne 1.
33-15-15 Berry, J. E. Crosbie 4.
22-15-16 Cramer, Forest Oil Co. 5.
27-15-16 Cramer, Forest Oil Co. 7.
36-15-17 LaGrone, Gilliland Oil Co. S-4.
30-15-16 McRea, Gilliland Oil Co. 4, 5.
36-15-17 W. A. Smith, Gilliland Oil Co. 3.
30-15-16 LaGrone, Green et al 1.
36-15-17 Werner, Gulf Refining Co. A-6.
36-16-17 Shirey, Herman & Jackson 1.
24-15-17 Smith, Lee, Trustee 1.
26-15-17 Brown, Magnolia Petroleum Co. 2.
24-15-17 Fee, J. W. Mangus 5.
28-14-17 McDaniels, Morefield et al 1.
26-15-17 Jeffus, R. B. Nelson 3.
34-15-15 Snyder, Owenwood Oil Corp. 4.
27-15-17 Hildreth, Peace et al 1.
22-15-16 Cramer, J. D. Reynolds 2.
19-15-16 Chandler, Skelly Oil Co. 5.
22-15-17 Hoffman, Southern Oil Co. 1.
33-15-15 Griffin, Standard Oil Co. of La. 4.
32-15-15 Umsted, Standard Oil Co. of La. 12.
30-15-16 LaGrone, Stumph and Todd 3.
28-15-16 Stringfellow, Sure Oil Co. 1.
20-15-16 Ebenzer, Sutton et al 1.
17-15-16 Tuberville, Weaver & Smithwick 1.
23-15-17 Anderson, Whittiken et al 4.
5-16-15 Goodwin, Wilson Petroleum Co. 1.
28-15-15 Brister, Pure Oil Co. 7.
20-15-16 Rowland, Atlantic Oil Producing Co. C-1.
Shut Down
25-15-17 Keller, Finley et al 1.
28-15-16 Mullins, Forest Oil Co. 1.
27-15-16 Mullins, Forest Oil Co. 11.
22-15-17 Riley, Hammon et al 1.
24-15-17 Elliott, Home et al 1.
23-15-17 Green, Hunt et al 1.
5-16-15 Hill, Invaders Oil Co. 1.
21-15-16 Ritchie estate, Johnson Drilling Co. 1.
4-16-15 Berg, Leon et al 1.
32-15-16 Patton, Leon et al 3.
28-15-16 Mullins, Marr Oil Corp. 4.
27-15-16 Mullins, Morris Drilling Co. 2.
5-16-15 Umsted, Olvey et al 1.
25-12-15 Eagle Mills Lumber Co., Peltier Oil Co. 2.
35-15-17 Shirey, J. S. Smith 1.
Rigs, 17; wells drilling, 48; total, 65.

BELLEVUE
Shut Down
23-19-11 Bliss & Weatherbee, Bliss & Weatherbee F-3.
Rigs, 0; well drilling, 1; total, 1.

CADDO
Wells Drilling
14-21-15 Robertshaw, Dixie Oil Co. 14.
13-21-15 Robertshaw, Dixie Oil Co. 43.
15-23-16 Rodessa Oil & Land Co., La. Tex. Community Oil Co. 1.
9-20-16 Jeems Bayou Hunting & Fishing Club, Reynolds Oil & Gas Co. 4.
Shut Down
16-14-16 Johnson, Adams, T. C., et al 1.
30-19-15 Nickerson, Arkansas-Caddo Oil Co. 1.
10-18-16 Sharp, Brewer & Sewall 1.
2-16-15 Grander-Blades, Caddo-Western Oil Co. 2.
23-19-24 Levy Realty & Planting Co. 1.
27-16-14 Alexander & Ledbetter, Crude Oil Co. 1.
24-22-15 Caddo Mineral Land Co., Lewis Oil Corp. 4.
6-16-16 Agurs, Proven Production Co. 1.
22-23-16 Rodessa Oil & Land Co., Rowe-Daniels et al 1.
Rigs, 6; wells drilling, 13; total, 13.

CLAIBORNE
Rigs
34-20- 6 Harmon, Pomeroy et al 1.
35-23- 6 Farmer, Gulf Refining Co. 1.
Wells Drilling
26-21- 6 Calhoun, Arnett et al 1.
20-20- 7 Eastep, Dixie Oil Co. 1.
22-19- 8 Fields, Forest Oil Co. 1.
Shut Down
20-21- 8 Aubry, Block Oil & Gas Co. 1.
Rigs, 2; wells drilling, 4; total, 6.

COTTON VALLEY
Rigs
21-21-10 Coyle, Alabama Petroleum Co. 1.
15-21-10 Cox, W., Fortuna Oil Co. 1.
14-21-10 Merritt, Fortuna Oil Co. 4.
14-21-10 S. J. Merritt, Fortuna Oil Co. 3.
22-21-10 Bank of Cotton Valley, Ohio Oil Co. 3.
15-21-10 Bodcau, Ohio Oil Co. 5, 6.
23-21-10 Holloway, Ohio Oil Co. 2.
Wells Drilling
24-21-10 Pardee, Alabama Petroleum Co. 1.
22-21-10 W. W. Cox, Hude & Aarnes 2.
14-21-10 Merritt, Humble Oil & Ref. Co. 1.
22-21-10 Lindsay, Invincible Oil Co. 1.
22-21-10 Bank of Cotton Valley 1.
15-21-10 Bodcau, Ohio Oil Co. 4.
23-21-10 Holloway, Ohio Oil Co. 1.
22-21-10 Duhe, Robinson, C. W., et al 1.
14-21-10 W. D. Merritt, Woodley Petroleum Co. 1.
Shut Down
14-21-10 L. Merritt, Fortuna Oil Co. 2.
17-19-10 Hudson, Olmstead et al 1.
29-12-10 Miller, Palmer Corp. 1.
8-20- 9 Bible, Stack & Eggers 1.
Rigs, 8; wells drilling, 13; total, 21.

LOUISIANA WILDCATS
Rigs
33-20- 4 Fee, Ladel et al 29.
40-20- 4 Trezevant, Ouachita Natural Gas Co. 3.
4-19- 5 Lieber, Palmer Corp. 3.
36-20- 4 Cole, United Oil & Gas Co. 2.
Wells Drilling
8-16- 9 Thomas, Bean et al 1.
13-17-12 Railroad Land Co., Skannall et al 1.
21-14- 4 Fee, Culver et al 1.
36-11-14 Pollock, Greyhound Synd. 1.
10-11-14 Hewitt-Hicka, Tarver, A. H., et al 1.
21-11- 2 Urania, Bur Ban Oil Co. 2.
27-10- 2 Louisiana Central Lumber Co., Stovall Drilling Co. 3.
20-10- 2 Urania, Urania Petroleum Co. 4.
22-20- 5 Feazel, Ladel et al 1.
35-21- 4 Crossett, Natural Gas Prod. Co. 12.
3-18- 5 West Va. Timber Co., Atlas Oil Co. 2.
20-20- 5 Perry, Amalgamated Oil Co. 5.
16-19- 5 Fee, Ladel et al 26.
30-19- 5 Fee, Ladel et al 28.
6-19- 5 Fee, Montgomery et al 1.
18-19- 5 Sheil, Pelican Gas & Carbon Co. 1.
5-19- 5 Fee, Southern Carbon Co. 35.
21-19- 5 Fee, Southern Carbon Co. 36.
29-19- 5 Fee, Southern Carbon Co. 37, 38.
11-19- 4 Ladel, The Texas Co. 2.
17-22-1w Nelson, Castello et al 1.
30-23-2w Brazile, Frankel Bros. 1.
8-21-10 Fiske, Arkansas Fuel Oil Co. 1
Shut Down
11-20-13 Bernstein, Amistead Trustee 1.
14-23-12 Bodcau Lumber Co., Estes et al 1.
24-17-12 Smith, Skannall et al 1.
23-18-11 Jones, Sneed et al 1.
3-18-11 McGuffin, Zink et al 1.
3-11-15 Frost-Johnson, Ulrey et al 1.
1- 7-1w Ball, Grant Parish Petroleum Co. 1.
22-11-2e Urania, Gulf Refining Co. A-1.
13-20-3w Barrett, Buckner et al 1.
26-20- 5 Perry, McKenzie et al 1.
18-18- 5 Gayle, Standard Carbon Co. 1.
7-20- 7 Michim, Zeigen et al 1.
13-12-10 Marston, Coushatta Synd. 1.
2-14-12 Fee, LaGrande et al 2.
25-21- 3 Heard, Cargile et al 1.
7-23-1e Frost Johnson Lumber Co., Love et al 1.
18-23-1e Templeton, Palmer, J. F., 1.
17-23-1e Clark, Union Parish Drg. Co. 3.
23-23-10 Bain Wagon Co., Orion Oil Co 1.
Rigs, 4; wells drilling, 43; total, 47.

ARKANSAS WILDCATS
Rigs
8- 4-12 Meek, Hill & Arnold 1.
3-20-24 Red River Land Co., Ken-Saw Petroleum Co. 2.
22-14-26 Gillespie, Munn Oil & Gas Co. 1.
Wells Drilling
1-15-15 Childress, Arkansas Fuel Oil Co. 1
10-13- 6 Karnes, Graves et al 1.
Shut Down
4-16- 7 Fee, Spoonse et al 1.
26-16-13 Freeman-Smith, Harris & Bickley 1.
22- 9-10 Plumer, Markel Synd. 1.
18-11-11 Word, Stark & O'Mara 1.
12-13- 6 Trotter, King & Wilson 1.
21-14- 7 Spencer, Ratcliff et al 1.
5-12- 8 Harris, Rhodes et al 1.
23-13- 6 Fee, Stenke et al 1.
8- 6-11 Pike, Haley & Evans 1.
24-11-25 King, Columbia-Hope Oil Co. 2.
17-11-25 Nichols, Hempstead Oil Co. 1.
17-12-23 Yates, Orr et al 1.
36-12-27 Adams, Simmons, G. W., Trustee 1.
7- 3-10 Hinsley, DeCou Oil Co. 1.
25-16-25 Penick, Wilcox et al 1.
31-14-23 Ford, Fullilove Drg. Co. 1.
15-13-29 Goodrun Timber Co., Gaines et al 1.
2-13-21 Allen, Grote et al 1.
10-11-31 Hawkins, Johnson et al 1.
29-13-29 Toland Taylor, Red River Valley 1.
32-11-32 Ludlow, Sullivan Oil & Gas Co. 2.
33-14-29 Thompson, Kress, G. L. 1.
Rigs, 3; wells drilling, 24; total, 27.

COLUMBIA COUNTY
Rigs
23-14-20 Jackson, Arkansas Osage Oil Corp. 3.
36-15-20 Weaver, Atlantic Oil Prod. Co. 2.
13-15-20 Adkins, Shaffer Oil & Ref. Co. 8-2.
Wells Drilling
36-15-20 Rinehart, Magnolia Pet. Co. 2.
1-19-21 Williams, Virgol Heath, Trustee 1.
Shut Down
23-18-23 Robinson, Brown et al 1.
12-15-20 Smart, Hickman et al 2.
30-19-18 Hays, Hosey-McDonald 1.
12-17-22 Sorrell, Johnson et al 1.
20-16-18 Watts, Miller et al 1.
15-18-20 Davis, Phillips et al 1.
7-19-19 Emerson, Russell & Kent 1.
35-18-19 Duffer, Smith & Compton 1.
Rigs, 3; wells drilling, 10; total, 13.

NEVADA COUNTY
Rigs
15-14-21 Blacke, Ames et al 1.
36-10-23 McCain, Arkando Oil Co. 1.
31-11-20 Lester Mill Co., Greeson et al 1.
10-14-21 Womack, Smitherman & McDonald 4.
Wells Drilling
10-14-21 Womack, Autry et al 3.
Shut Down
27-14-21 Johnson, Dee et al 1.
32-11-21 Grayson, Dudley et al 1.
12-13-21 Mones, Kenark Oil Co. 1.
17-10-22 Cornelius, Lockhart et al 1.
10-12-10 Henry, Prescott Oil Co. 2.
16-14-21 Butcher, Steele & Sandlin 1.
1-10-23 Suckle, Wiseman et al 1.
9-13-20 Moore & Martin, Wooten et al 1.
Rigs, 4; wells drilling 9; total 13.

GULF COAST

District—	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Tu.
Batson	11	115	4	0	0	4	4
Big Creek	3	0	3	0	0	3	3
Barber Hill	1	0	1	0	0	1	1
Blue Ridge	1	0	4	0	0	4	4
Damon Mound	0	0	0	0	0	2	2
Edgerly	1	0	1	0	0	0	0
Goose Creek	18	1,975	5	0	3	13	16
Humble	7	2,920	1	0	1	3	4
Hull	14	4,450	3	0	4	16	20
Jennings	2	0	1	0	0	0	0
Markham	1	0	1	0	2	2	4
Orange	16	10,290	4	0	5	12	17
Pierce Jct.	0	0	0	0	0	2	2
Spindletop	3	65	1	0	0	4	4
Saratoga	7	95	3	0	0	3	3
Sour Lake	3	20	1	0	1	4	5
Vinton	4	100	3	0	1	5	6
West Columbia	3	1,075	0	1	0	5	5
Miscellaneous, Gulf Coast	9	360	4	1	9	27	36
Total Aug.	103	21,525	33	2	25	118	143
Total July	100	30,692	25	1	34	143	176
Difference	3	9,167	7	1	9	34	33
Southwest Fields—							
Luling	20	12,000	0	1	3	28	30
Laredo	11	1,095	1	0	3	11	14
Caillham	5	50	2	2	2	5	7
Somerset	1	75	0	0	2	6	8
Rockdale-Minerva	4	110	0	0	1	3	4
Miscellaneous Southwest Counties	5	5	1	3	99	347	446
Total Aug.	46	13,335	4	3	110	402	512
Total July	59	16,132	14	5	130	488	661
Difference	13	2,797	10	2	20	35	55
Grand total August	149	34,860	36	5	135	521	656
Grand total July	159	46,824	39	6	164	589	764
Difference	10	11,964	3	1	29	69	91

Decrease completions, 60; decrease new production, 11,964; decrease dry holes, 1; decrease gas wells, 1; decrease rigs, 29; decrease drilling wells, 59; net decrease, 91.

WELLS COMPLETED
BATSON

Fee, Paraffin Oil 57..... 20

Honeymoon, Ada Belle Oil 77 25
Honeymoon, Ada Belle Oil 78 25
Honeymoon, Ada Belle Oil 79 10
Honeymoon, Ada Belle Oil ..... dry
Paraffine, Sun Co. 73 10
Allen East, Batson Oil 7 10
Trustee, Duetser Oil 9 10
Trustee, Duetser Oil 10 ..... dry
Trustee, Paraffine Oil 38 15
Knight, Paraffine Oil 38 ..... abd
Hodges, Kirby Petroleum 2 ..... abd
Hooks, Campbell & Borsum 2 ..... dry

Wells completed 11
Production 115
Dry - Abandoned 4

BIG CREEK

Ahlers, Rich et al 1 ..... abd
Wheat, Gulf Production 7 ..... dry
Texas, Union Sulphur 1 ..... abd

Wells completed 3
Dry - abandoned 3

BARBER HILL

Cove, Texas & Kirby Cos. 1 ..... abd

BLUE RIDGE

Blakely, Gulf Prod. 9-C ..... msw

EDGERLY

Wilson, Evans and Stovall 2 ..... sw

GOOSE CREEK

Freeman, Goose Creek Oil 5 350
Sweet, Humble Oil & Ref. 26 200
Smith, Humble Oil & Ref. 59 ..... abd
Galliard, Humble Oil & Ref. 51 150
Galliard, Humble Oil & Ref. 14 (wo).. 50
Gallliard, Gulf Coast-United Cent. 28.. sw
Wright, Southern Exploration 6 ..... sw
Wright, Southern Exploration 7 200
Bartlett-Smith, Sun Co. 8 ..... dry
Bartlett-Smith, Sun Co. 1 (wo) ..... sw
Chapman-Bryan-Gulf Prod. 5 25
Smith, Gulf Prod. 19 (wo) 50
Beaumont, Gulf Prod. 29 300
Beaumont, Gulf Prod. 26 50
H. Gallliard, Gulf Prod. 3 150
Duke, Inca Prod. 4 350
Dannebaum, La Rue Oil 3 ..... abd
Gillette, Allen A Marshall 1 100

Wells completed 18
Production 1975
Abandoned and salt water 5

HUMBLE

Morris, Morris et al 2 ..... sw
Stevenson, Galena-Signal Oil 41 250
Stevenson, Galena-Signal Oil 42 200
Stevenson, Galena-Signal Oil 46 1000
Landslide, Southern Pet. 18 (wo) 20
Landslide, The Texas Co. 292 (wo)... 250
River, Sun Co. 19 1200

Wells completed 7
Production 2920
Salt water 1

HULL

Dolbear, Republic Prod. 26 (wo) 25
Dolbear, Republic Prod. 70 (wo) 1500
Dolbear, Republic Prod. 87. 175
Dolbear, Republic Prod. 9 (wo) 1500
Dolbear, Republic Prod. 13 (wo) ..... abd
Dolbear, Republic Prod. 88 (wo) ..... abd
Phoenix, Gulf Prod. 33 100
Phoenix, Gulf Prod. 16 200
Baldwin, Gulf Prod. 10 150
Morris-Phillips, Gulf Prod. 12 (wo)... 200
Merchant, Yount-Lee Oil 5 300
Abel, Monarch Oil & Ref. 9 ..... dry
Taylor, Higgins Fuel Oil 2 100
Hanaan, Texas-Vacuum Oil 3 200

Wells completed 14
Production 4450
Dry and abandoned 3

JENNINGS

Jennings-Clement, Gulf Ref. 34 60
Pet. Fontenet Oil 4 ..... sw

Wells completed 2
Production 60
Salt water 1

MARKHAM

Myers, Rycade Pet. Corp. 2 ..... dry

ORANGE

State land, Rycade Pet. Corp. 2-E....3500
State land, Rycade Pet. 4-E *4000
Gunstream, Sun Oil Co. 5 2000
Hager, Atlantic O. P. 3 (wo) 150
Whitfree, Humble Oil & Ref. 5 50
Chesson, Humble Oil & Ref. 19 25
McLean, Brownie Babbittee Oil 9..... 50
Brown, Brownie Babbittee Oil 3 ..... abd
Carbello, Edgerly Pet. 2 (wo) 50
Carbello, Edgerly Pet. 7 250
Chesson, Mutual Oil 2 (wo) 15
Chesson, Mutual Oil 13 (wo) ..... sw
State land, Tillery Oil 2 (wo) 50
Hammam, Gulf Prod. 1 ..... abd
Hager, Gulf Prod. 16 (wo) 150
Hager-Moore, Gulf Prod. 11 (wo) ..... sw

Wells completed 16
Production 10290
Dry and salt water 4

SPINDLETOP

Sunshine, John Wynne 1 15
Gladys, Gulf Prod. 207 50
Gladys, Gulf Prod. 208 ..... dry

Wells completed 3
Production 65
Dry 1

SARATOGA

311-B, Rio Bravo Oil 40
P-s, Rio Bravo Oil ..... abd
Queen, Paggi Bros. Oil 42 5
BBBC, Gulf Prod. 22 15
Fee, Sun Co. 170 25
19-A, Rio Bravo Oil 10
Lewis, Paggi Bros. Oil 4 ..... abd

Wells completed 7
Production 95
Abandoned 2

SOUR LAKE

Fee, The Texas Co., 288 10
Hardin, Lake View Oil 39 10
Fee, Minor Oil 73 ..... dry

Wells completed 2
Production 20
Dry 1

VINTON

Star, Gulf Refining 32 100
G. M. G., Gulf Refining 33 ..... dry
G. M. G., Gulf Refining 50 ..... dry
Gray, The Texas Co. 25 ..... dry

Wells completed 4
Production 100
Dry 3

WEST COLUMBIA

Hogg, The Texas Co. 81 275
Hogg, The Texas Co. 80 ..... gas
Abrams, The Texas Co. 11 800

Wells completed 3
Production 1075
Gas 1

MISCELLANEOUS
GULF COAST
High Island, Galveston County—

Carter, Great Western Oil 7 75
Cox, Cox Oil 1 75
Cade, Sun Oil Co. 6 150

Big Hill, Jefferson County—

Pipkin, Hourton Oil 7 ..... abd

Duval County—

Walsh, Humble Oil & Ref. 3 ..... abd
Tinney, Union Sulphur 1 ..... abd

Kleberg County—

Flato, Humble Oil & Ref. 1 ..... gas

San Augustine County—

Snell & Stratton 1 ..... abd

Calcasieu Parish, Louisiana—

Miller, Vacuum Oil 2 60

Wells completed 9
Production 360
Gas 1
Abandoned 4

SOUTHWESTERN FIELDS
LULING

Mercer, United North & South Oil 9.... 500
Mercer, United North & South Oil 5-A 500
Mercer, United North & South Oil 3.... 800
Moore, United North & South 2 2000
Tiller, United North & South Oil 1 800
Moore, United North & South Oil 6.... 500
Moore, United North & South 7 500
Rios, United North & South Oil 11.... 250
Rios, United North & South Oil 12 250
Rios, United North & South Oil 13 250
C. Byrd, United North & South Oil 6.. 250
C. Byrd, United North & South Oil 7.. 250
Gideon, United North & South Oil 6.. 500
Allen, United North & South Oil 26-A.1200
Allen, United North & South Oil 32.... 250
Allen, United North & South Oil 31.... 200
Allen, J. K. Hughes Dev. 6 500
Allen, J. K. Hughes Dev. 31 500
Shanklin, United North & South Oil 3.. gas
Schubert, Magnolia Petroleum 9..... 2000

Wells completed 20
Production 12000
Gas 1

LAREDO DISTRICTS

Los Ojulas Pool, A. Heatley et al 10.. 150
Los Ojulas Pool, Cin-Tex Oil 6 125
Schott Pool, Allsworth Bros. 3 100
Schott Pool, Poore Boy Oil 1 100
Schott, Shasta Oil 7 150
Aviator, Rydal Oil 2 100
Aviator, Alonzo Oil 5 100
Aviator, Rydal Oil 3 ..... abd
Aviator, Associated Oil 10 100
Aviator, Associated Oil 11 120
Aviator, Associated Oil 12 50

Wells completed 11
Production 1095
Abandoned 1

CALLIHAM

Stitz, Three Rivers Oil 4 50
Byrne, Three Rivers Oil 1 ..... abd
Lark, Southern Natural Gas 9 ..... gas
Stitz, Everitt et al 2 ..... abd
Fisher, Hoard et al 2 ..... gas

Wells completed 5
Production 50
Gas 2
Abandoned 2

ROCKDALE-MINERVA

Fee, Lee Oil 3 50
Fee, Roundtree Oil 8 20
Roark, Rockdale Oil 2 30
Noark, Phillips Oil 1 10

Wells completed 4
Production 110

SOMERSET

Southwest, Boynton Oil 1 75

MISCELLANEOUS
SOUTHWEST
Bastrop County—

Lyton, Dixie Oil 1 ..... abd

Medina County—

Inda, Rycade Oil 1 5

Live Oak County—

Cartwright, Houston Oil 4 ..... gas
Miller, Plateau-T. P. C. & O. 1 ..... gas

Jim Hogg County—

Martinez, Henne, Winch & Farriss 2... gas

Wells completed 5
Production 5
Gas 3
Abandoned 1

RIGS AND DRILLING WELLS
BATSON
Wells Drilling

Milhome, S. R. Buchanan 77.
Donohoe, W. B. Flynn 1.
BBB, Paraffine Oil 2.
Phoenix, Gulf Production 12.
Wells drilling, 4.

BIG CREEK
Wells Drilling

Wheat, Gulf Prod. 7, deepening.
Davis, Gulf Prod. 14, 15.
Wells drilling, 3.

BARBER HILL

McKinney, Kirby Pet. and Bennett 1.

BLUE RIDGE

Robinson, The Texas Co. 12.
West-Schenck, Gulf Prod. 5, shut down.
Invincible, Gulf Prod. 1.
Blakely, Gulf Production 9-C.
Wells drilling, 4.

DAMON MOUND
Wells Drilling

Cave, Sinclair Oil & Gas 1.
Gallagher, Humble Oil & Ref. 5 (wo).
Wells drilling, 2.

GOOSE CREEK
Rigs

Duke, Inca Pro. 2.
State land, Gulf Prod. 13.
Wells Drilling
Tabb, Humble Oil & Ref. 11.
Smith, Humble Oil & Ref. 56 deepening, 59.
State land, Jones, Humble Oil & Ref. 5.
Galliard, Gulf Coast-United Central 38 dpng.
Bryan, Copeland Oil 5.
Busch, Hisgen Pet.
Hirsch, Gulf Prod. 3, 4.
Wright, Gulf Production 21-A.
State land, Gulf Production 11.
San Jacinto Bay, Gulf Prod. 2.
Rigs, 2; wells drilling, 12; total, 14.

HUMBLE
Rig

Jones, C. A. Gunter 1.
Wells Drilling
Bissonett, Deering et al 2.
Landslide, Southern Pet. 45, shut down.
River, Sun Oil Co. 20.
Rig, 1; wells drilling, 3; total, 4.

HULL
Rigs

Abel, Monarch Oil & Ref. 10.
Merchant, Humble Oil & Ref. 3.
Dolbear, Republic Prod. 90.
Phoenix, Gulf Prod. 43.
Wells Drilling
Hannah, Humble Oil & Ref. 1.
Hooks, Humble Oil & Ref. 10.
Barngrover, Houston Prod. 10.
Merchant, Yount-Lee Oil 10.
Dolbear, Republic Prod. 81 workover, 89.
Mecom, Mecom Oil 6, 7.
Cantor, Cantor Oil 3.
Merchant, Higgins Fuel Oil 1.
Baldwin, Gulf Prod. 10 workover.
Scarborough, Gulf Production 7, 13.
Thomas, Gulf Production 6.
Phoenix, Gulf Production 29.
Morris-Phillips, Gulf Prod. 12 deepening
Rigs, 4; wells drilling, 16; total, 20.

JENNINGS
Rigs
Wells Drilling

Clement, F. I. Getty 2.
Fee, Coastal Fuel 80 workover.
Latrielle, Texas Co. 43 deepening.
Borington, Caldia Prod. 1.
Martin, R. N. Hines 2.
Arnandet, Gulf Ref. 31.
Wells drilling, 6.

MARKHAM
Rigs

Smith, Powers Prod. 1.
———, Gulf Prod. 1
Wells Drilling
Sirk, Rycade Pet. 1.
Myers, Rycade Pet. 2 deepening.
Rigs, 2; wells drilling, 2; total, 4.

ORANGE
Rigs

State land, Rycade Pet. 3-E.
Winifree, Humble Oil & Ref. 7.
Carbello, Humble Oil & Refg. 1. workover.
Hamman, Gulf Prod. 2.
Kishi-Lang, Gulf Prod 8-A.
Wells Drilling
Winifree, Am. National Oil 1.
Brown, Brownie Babbittee Oil 4.
Carbello, Edgerly Petroleum 10.
State land, Rycade Petroleum 8, 14.
Chesson, Mutual Oil 3 wo.; 5 wo; 13 dpng.
Brown, Sun Oil Co. 5.
Gunstream, Sun Oil Co. 4 workover.
Kato, Sun Oil Co. 1.
Hager-Moore, Gulf Prod. 11.
Rigs, 5; wells drilling, 12; total 17.

PIERCE JUNCTION
Wells Drilling

Taylor, Gulf Production 16.
Ross, Atlantic Oil Producing 1.
Wells drilling, 2.

SPINDLETOP

Gladys, Rycade Pet. 1.
Gladys, Sheffield 1-G.
Lowrey, Wonder Oil 2.
Gladys, Gulf Prod. 208 deepening.
Wells drilling, 4.

SARATOGA

S. F. S., Sun Oil Co. 171 deepening.
Kirby, Wonder Oil 5.
10-B, Rio Bravo Oil 10.
Wells drilling, 3.

SOUR LAKE
Rig

Fee, The Texas Co. 228 workover.
Wells Drilling
Hardin, Lake View Oil 40.
B. & E., Sun Oil Co. 58.
Rio Bravo, Antillery et al 2.
Fee, Minor Oil 73 deepening.
Rig, 1; wells drilling, 4; total, 5.

VINTON
Rig

Harmony, Vinton Pet. 13.
Wells Drilling
Gray, Gulf Refining 2.
Weeks, Just Oil & Refining 1.
Lyons, Just Oil & Refining 2.
M. Gray, The Texas Co. 1-A, 26.
Parks, Wilson-Tucker 2.
Gray, Edgerly Petroleum 1.
Rescue, Vinton Petroleum 1.
Rig, 1; wells drilling, 8; total, 9.

WEST COLUMBIA
Wells Drilling

Badge, Humble Oil & Ref. 2.
Tyndale-Wyoming, Humble Oil & Ref. 9
Hogg, The Texas Co. 80 deepening.
Robertson, The Sun Oil Co. 3 workover.
Tom Hogg, Gulf Production 6.
Wells drilling, 5.

LULING
Rigs

Thomas, Putman et al 1.
Fields, C. E. Anderson 2.
Wells drilling
Moore, United North & South 8, 10.
C. Byrd, United North & South 6, 7, 8.
Hardeman, United North & South 7.
Tiller, United North & South 2.
Byrd fee, United North & South 5, 6.
A. Mercer, United North & South 9.
M. Mercer, United North & South Oil 9, 10.
McKean, United North & South 11, 12-A, 13-A, 17.
Roberts, United North & South 3.
Allen, United North & South 10 dpng, 32.
Baker, United North & South 11, 20.
Allen, J. K. Hughes Dev. 17, 18.
Schubert, Magnolia Petroleum 10.
Harris, H. C. Thornton 2, 3.
Walker, Solomon et al 1 shut down.
Jones, Walhunda Oil 1.
Rigs, 2; wells drilling, 28; total, 30.

LAREDO DISTRICTS

Lucas, Kirkpatrick & Lucas 5, 6.
Bruni, Cole Petroleum 5.
Wells Drilling
Lucas, Kirkpatrick & Lucas 4.
———, Alonzo Oil 3.
Garcia, Hobo Oil 1 shut down.
Lucas, Kirkpatrick & Lucas 4.
Caroline-Texas Oil 6.
Walkers, H. H. Palmer 1.
———, Andrews Petroleum 1.
Petty, Boyd Oil 1.
Pratt, A. D. J. Co. 2.
Carnahan P. & R. 6, 18.
———, Cooperetve Oil 1.
———, Olsan Oil 1.
Rigs, 3; wells drilling, 11; total, 14.

CALLIHAM
Rigs

Nichols, Black Panther Oil 1.
Welsh, Kepley et al 2.
Calliham, Three Rivers Oil 2.
Wells Drilling
Mahoney, A. W. Kilhatt 1.
Nichols, Black Panther Oil 3.
Lark, Southern Natural Gas 10.
Lark, Lightfoot et al 2, 3, 4.
———, George Pickett 1 shut down.
Calliham, Grubstake Investment 2.
Rigs, 3; wells drilling, 8; total, 11.

ROCKDALE-MINERVA
Rig

Nelson, National Refining 1.
Wells Drilling
Lee, Phillips 3.
Roark, Roundtree Oil 9.
Sterlig, Van Gotem 3 shut down.
Rig, 1; wells drilling, 3; total, 4.

WYOMING FIELDS

Summary of Operations

District—	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Big Muddy ..	0	0	0	0	4	4	
Salt Creek ..	63	6,265	0	0	66	125	191
Lance Creek .	1	0	1	0	0	3	3
Big Horn Basin	1	0	0	1	11	43	54
Lost Soldier .	8	1,090	3	2	6	35	41
Rock River ..	1	185	0	0	1	21	22
Fremont Co. ..	0	0	0	0	0	18	18
Orage	1	20	0	0	6	8	14
Natrona Co. .	1	25	0	0	0	24	24
Lincoln Co. ..	0	0	0	0	0	6	8
Baxter Basin.	2	0	1	1	2	9	11
Miscellaneous.	0	0	0	0	3	12	15
Total Aug..	78	7,525	5	4	96	309	405
Total July.	80	13,760	6	2	108	295	403
Difference..	2	6,235	1	2	12	14	2

MONTANA

District—	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Cat Creek.....	2	25	1	0	1	20	21
Sunburst	22	2,997	4	1	16	33	49
Miscellaneous..	0	0	0	0	8	78	86
Total Aug. ..	24	3,322	5	1	25	131	156
Total July ..	26	6,200	12	0	20	123	143
Difference...	2	3,178	7	1	5	8	13

COLORADO

District —	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
All fields	3	2,000	1	1	9	44	53
Total July	2	50	0	1	8	39	47
Difference...	1	1,950	1	0	1	5	6

UTAH

District—	Rigs	Drg.	Ttl.
All fields August	2	25	27
Total July	1	25	26
Difference	1	0	1

NEW MEXICO

District—	Rigs	Drg.	Ttl.
All fields August	2	18	20
Total July	2	12	14
Difference	0	6	6

BIG MUDDY FIELD
Shut Down

8-33-76 Humphrey Oil Co. 38.
2-33-76 Fenix, Mutual Oil Co. 4.
8-33-76 Carey, Texas Prod. Co. 32.
15-33-76 Whiteside, Mutual Oil Co. 3.
Wells drilling, 4.

SALT CREEK
Rigs

20-39-79 Dain 9, Ohio Oil Co. 7.
12-39-79 Castle Rock, Ohio Oil Co. 1.
30-40-78 SW¼, Wyoming Associated 12-A.
26-40-79 SW¼, Midwest Oil Co. 13-AX.
14-40-79 SE¼, Midwest Oil Co. 1-A.
6-36-78 NE¼, Producers & Refiners 24-A.
2-40-79 SE¼, Producers & Refiners 36-A.
18-40-79 Marine Oil Co. 5.
18-40-78 SW¼, Cont. Prod. W-2, and W-9.
32-40-78 NW¼, Cont. Prod. B-10 and B-12.
5-39-78 SW¼, Carter Oil Co. R-10.
30-40-78 SW¼, Mutual Oil Co. 25-A.
6-39-78 NW¼, Staley Syndicate 11.
26-40-79 NW¼, Wyoming Associated 21-A.
26-40-79 SW¼, Wyoming Associated 19-A.
34-39-78 SW¼, Mammoth Oil Co. 302.
34-39-78 NW¼, Mammoth Oil Co. 206.
28-39-78 NW¼, Mammoth Oil Co. 204.
33-39-78 NE¼, Mammoth Oil Co. 405.
28-39-78 SE¼, Mammoth Oil Co. 406.
13-39-78 SE¼, Bessimer Oil Co. 2-AX and 12-AX.
13-39-78 SE¼,Blackstone-Salt Creek F-4.
11-39-79 NE¼, Kasoming Oil Co. B-11 and B-4.
17-39-78 SE¼, Marine Oil Co. 2 and M-8.
2-39-78 SE¼, Sinclair Wyoming 11.
10-40-79 SE¼, Empire States Oil Co. 24-A.
2-39-79 SW¼, Mutual Oil Co. 12-A.
11-39-79 SW¼, E. T. Williams Oil Co. 2-A.
13-38-78 SW¼, Wyoming Teapot Oil Co. 1.
16-39-79 NE¼, Nicholaysen et al 1.
8-39-78 SW¼, Western States 21-A.
10-38-78 NW¼, Mammoth Oil Co. 302.
19-40-78 NE¼, Norris Oil Co. 18-A.
35-40-78 SW¼, Midwest Oil Co. 34-A.
5-39-78 NW¼, Carter Oil Co. D-8.
25-40-79 NW¼, Wyoming Oil Fields 31-A.
23-40-79 SW¼, Wyoming Asso. 22-A.
26-40-79 NE¼, Wyoming Asso. 18-A.
14-40-79 SW¼, Wyoming Asso. 13-A.
34-40-79 NE¼, Wyoming Asso. 22-A.
35-40-79 SE¼, Wyoming Asso. 4-A.
35-40-79 SE¼, Wyoming Asso. 19-A.
31-40-78 SE¼, Salt Creek Con. 34-A.
31-40-78 SE¼, Salt Creek Con. 13-A.
31-40-78 NE¼, Salt Creek Con. 25-A.
31-40-78 NE¼, Salt Creek Con. 6-A.
12-40-79 SE¼, Mt. and Gulf 19-A.
11-40-79 SE¼, Midwest Oil Co. 19-A.
2-39-79 NW¼, Midwest Oil Co. 4-A.
12-40-79 SW¼, Midwest & Wyo. Asso. 24-A.
30-40-78 NW¼, Utah Oil & Ref. 12-A.
6-40-78 NE¼, Prod. & Ref. B-1.
2-40-78 SE¼, Prod. & Ref. 1.
6-39-78 SE¼, Prod. & Ref. 5.
8-39-78 SW¼, Prod. & Ref. 3.
17-39-78 NW¼, Prod. & Ref. 2.
8-39-78 NE¼ Western States 21-A.
17-39-78 NW¼, Western States 25-A.
29-40-78 SW¼, Continental Prod. 8-5.

19-40-75 SE¼, Continental Prod. N-7.
32-40-78 SW¼, Mutual Oil Co. 25-A.

Wells Drilling

1-39-79 Dain 9, Ohio Oil 17.
12-39-79 Castle Rock, Ohio Oil Co. 10.
23-40-79 NW¼, Wyo. Oil Fields 13-A.
17-39-78 Tract G, Ohio Oil Co. 2.
25-40-79 NW¼, Wyo. Oil Fields 15-A.
25-40-79 SW¼, Wyo. Asso. 23-AX.
14-40-79 SW¼, Wyo. Asso. 19-A.
27-40-79 NE¼, Wyo. Asso. 11-AX.
24-40-79 SW¼, Wyo. Asso. 13-AX.
26-40-79 NW¼, Wyo. Asso. 15-A.
14-40-79 SE½, Wyo. Asso. 4-A.
24-40-79 SE¼, Wyo. Asso. 18-A.
14-40-79 NW¼, Wyo. Asso. 4-A.
1-39-79 NW¼, Wyo. Asso. 19-A, 22-A.
30-40-78 SW¼, Wyo. Asso. 9-A.
24-40-79 NE¼, Wyo. Asso. 4-A.
27-40-79 NE¼, Wyo. Asso. 15-A.
15-40-79 NE¼, Wyo. Asso. 36-A.
24-40-79 NE¼, Wyo. Asso. 2-A.
35-40-79 SE¼, Wyo. Asso. 19-A.
14-40-79 NW¼, Wyo. Asso. 19-A.
34-40-79 SE¼, Salt Creek Con. 33-A.
31-40-78 SE¼, Salt Creek Con. 30-A.
31-40-78 NE¼, Salt Creek Con. 13-A.
31-40-78 NE¼, Salt Creek Con. 12-A.
31-40-78 NE¼, Salt Creek Con. 36-A.
31-40-78 NW¼, Salt Creek Con. 35-A.
13-40-79 SE¼, Mt. and Gulf 33-A.
6-39-79 NE¼, Mt. and Gulf 22-A, 15-A.
6-39-78 NE¼, Mt. and Gulf 21-A, 4-A.
26-40-79 SW¼, Midwest Oil Co. 18-A.
14-40-79 NE¼, Midwest Oil Co. 34-A.
35-40-79 NE¼, Midwest Oil Co. 34-A.
1-39-79 NW¼, Midwest Oil Co. 10-A.
14-40-79 NE¼, Midwest Oil Co. 33-A.
1-39-79 NE¼, Midwest Oil Co. 19-A.
11-40-79 SW¼, Midwest Oil Co. 33-A.
22-40-79 SW¼, Midwest Oil Co. 2-A.
27-40-79 NE¼, Midwest Oil Co. 22-A.
19-40-78 SW¼, Midwest Oil Co. 13-A.
25-40-79 NE¼, Midwest & Wyo. Asso. 13-A.
16-39-78 NW¼, Marine Oil Co. N-4.
20-39-78 SW¼, Marine Oil Co. T-8, T-6.
19-39-78 NW¼, Kinney Coastal 31-A.
5-39-78 NW¼, Western States 16-A.
18-40-78 SW¼, Continental Prod. W-7, W-6.
32-40-78 SW¼, Continental Prod. B-14.
5-39-78 SW¼, Carter Oil Co. R-11.
17-39-78 NE¼, Carter Oil Co. P-12.
30-40-78 NE¼, Bonfils Oil Co. 31-A.
2-39-79 SE¼, Sinclair Wyo. 14 and 15.
10-39-79 NE¼, Mutual Oil Co. 26-A.
18-40-78 SW¼, Pyokans (Marine) Oil Co. 6.
20-39-78 Marine Oil Co. 8.
20-39-78 Tract ET, Ohio Oil Co. 6.
27-40-79 Columbia 2, Ohio Oil Co. 12.
34-40-79 NW¼, Wyoming Asso. 24-AX.
1-39-79 NW¼, Wyoming Asso. 24-A.
3-39-79 NE¼, Salt Creek Con. 30-AS.
27-40-79 SW¼, Salt Creek Con. 36-A.
31-40-78 SW¼, Salt Creek Con. 4-A.
18-40-78 NW¼, Salt Creek Con. 34-A.
27-40-79 SE¼, Midwest Oil Co. 18-A.
7-39-78 NE¼, Kasoming Oil Co. E-2, E-3.
20-39-78 SW¼, Marine Oil Co. T-7.
16-39-79 NE¼, Mutual Oil Co. 26-A.
32-40-78 SW¼, Mutual Oil Co. 29-A.
2-39-79 SW¼, Mutual Oil Co. 25-A.
11-40-79 SW¼, Midwest Oil Co. 13-A.
20-39-78 NW¼, Prod. & Refg. D-13.
19-40-78 SE¼, Continental Prod. C-2.
30-40-78 SE¼, Wyoming Asso. 16-A.
22-40-79 NW¼, Kasoming Oil Co. B-2-S.
7-39-78 SE¼, Mutual Oil Co. 1, 2.
12-40-79 NE¼, Empire State Oil Co. 32-A.
26-40-79 NW¼, Wyoming Asso. 8-AX.
30-40-78 SE¼, Wyoming Asso. 7-A.
18-40-78 SW¼, Salt Creek Con. 22-A.
11-40-79 NE¼, Mt. & Gulf 33-A, 34-A.
6-39-78 NW¼, Mt. & Gulf 29-A.
13-40-79 SE¼, Mt. & Gulf 22-A.
2-39-78 NW¼, Midwest Oil Co. 23-A.
26-40-79 SE¼, Midwest Oil Co. 8-A.
25-40-79 SW¼, Midwest Oil Co. 16-A.
11-40-79 SE¼, Midwest Oil Co. 2-A.
13-40-79 SE¼, Mt. & Gulf 34-A.
6-39-78 NW¼, Mt. & Gulf 7-A.
18-39-78 NW¼, Prod. & Ref. D-1.
6-39-78 NE¼, Prod. & Ref. 16-A.
30-40-79 SE¼, Prod. & Ref. 9.
19-40-78 NE¼, E. T. Williams 25-X.
17-39-78 SE¼, Marine Oil Co. 7.
32-40-78 SE¼, Kinney Coastal 30-A.
28-40-79 SW¼, Jupiter Oil Co. 27-A.
5-39-78 NE¼, Western States 30-A.
19-40-78 SE¼, Continental Prod. C-3.
32-40-78 NW¼, Continental Prod. B-11.
5-39-78 NW¼, Western States 16-A.

Shut Down

27-40-79 SE¼, Midwest Oil Co. 31-AX.
34-40-79 SW¼, Mutual Oil Co. 35-A.
19-39-78 NW¼, Continental Prod. R-3.
18-40-78 SW¼, Continental Prod. W-1.
28-40-79 SE¼, J. C. Smith S-1.
29-39-78 NE¼, Mammoth Oil 108.
28-39-78 Mammoth Oil Co. 101-A.
10-38-78 NE¼, Mammoth Oil Co. 101.
21-39-78 SW¼, Mammoth Oil Co. 304.
28-39-78 SW¼, Mammoth Oil Co. 302.
28-38-78 NW¼, Mammoth Oil Co. 205.
4-38-78 NE¼, Mammoth Oil Co. 101.
23-39-79 SE¼, Evans Oil Co. 1.
29-40-78 NW¼, Omaha Lusk Oil 1.
35-39-78 SW¼, Teapot Dome Synd. 15-A.
2-38-78 SE¼, Teapot Dome Synd. 34-A.
2-38-78 NE¼, Teapot Dome Synd. 406.
24-39-79 NE¼, Mutual Oil Co. 22-AS.
Rigs, 66; wells drilling, 126; total, 191.

LANCE CREEK

Wells Drilling

26-35-65 Rodeo, Buck Creek Oil.

Shut Down

5-35-65 Lamb, Ohio Oil Co. 1.
18-35-65 NE. Union Oil 1.
Wells drilling, 2.

BIG EORN BASIN

Wells Drilling

32-56-97 Howell, Occidental O. & G.
30-58-99 Elk, Midwest Refg. Co. 71.
17-46-98 Washakie, Ohio Oil 1.
19-46-98 Meeteetse, Midwest Refg. 16-A.
2-47-100 NE, Midwest Ref. Co. 3.
4-50-100 NW, Florence Oil Co. 1.
16-45-95 Westland Oil Co. 1.
23-44-95 Flavin, Ohio Oil Co. 1.
5-47-90 Hetzler, Ohio Oil Co. 1.
7-46-98 Washakie, Ohio Oil Co. 1.
20-30-101 Gulterman et al 1.

Wells Drilling

26-46-100 NE, Prod. & Ref. 1.
35-43-91 Black Mt., Utah Oil & Ref. 2.
11-45-95 SE, Midwest Ref. 1.
31-46-100 Broom, Ohio Oil Co. 1.
18-46-98 Washakie, Ohio Oil Co. 4.
18-45-98 Wyley, Ohio Oil Co. 19.
20-46-98 Milliron, Ohio Oil Co. 19.
17-42-95 Markham & Woods.
3-35-97 Royalty Holdings 1.
30-56-97 Prod. & Ref. 1.
8-51-100 Sonners, Ohio Oil Co. 1.
35-33-100 Union Oil 1.
4-50-100 Oregon Basin, Flynn & Ache 1.
31-53-100 Cody Oil & Gas.
11-49-102 Omar Oil & Gas.
19-56-97 NE, Utah Southern Oil 1.
19-46-98 Ridgeley, Midwest Ref. 19-A.
13-45-93 Washakie, Midwest Refg. 1.
18-46-98 SW, Midwest Refg. 20.
11-49-102 Florence Oil Co. 1.
34-43-93 C. D. Martin et al.
19-46-98 State, Ohio Oil Co. 40.
31-56-96 Standard of California.
34-56-97 Linton, Allen Oil & Gas.
30-58-99 Elk 5, Midwest Ref. Co. 16.
1-47-100 NW, Midwest Refg. 1.
1-47-100 NE, Midwest Refg. Co. 2.
31-45-99 NW, Kasoming Oil Co.
11-49-102 Clark et al.

Shut Down

27-46-98 Rankin, Dickie Oil Co.
8-46-98 Grass Creek Prod.
3-42-92 NE, Union Oil Co.
10-42-95 Murphey Mutual Oil.
28-44-93 F. A. MacPherson.
2-44-96 F. A. MacPherson.
12-45-97 Midwest Ref. Co.
2-56-97 Jones, Allen Oil Co. 1.
32-58-99 Thompson, Elk Basin Oil Co.
31-48-100 Midwest Ref. 1.
3-56-97 Griffith, Allen Oil Co. 1.
25-58-100 Beck Pet. Co. 1.
16-47-100 Big Horn Dev. Co. 1.
21-53-100 Pitts & Southwestern.
Rigs, 11; wells drilling, 43; total, 54.

LOST SOLDIER AND CARBON COUNTY

Rigs

3-26-90 Sand Hills Oil Co. 5.
3-26-90 Kasoming Oil Co. 57-A.
22-26-87 Govt. Land, Sand Hills Oil 1.
36-25-89 NE. Prod. & Ref. 2.
10-26-90 U. S. Pet.

Wells Drilling

23-26-87 SE, Marvin Oil Co. 1.
11-26-90 Kasoming Oil Co. 4-B.
11-26-90 Kasoming Oil Co. 52-A.
3-26-90 Kasoming Oil Co. 48-A.
20-31-81 Prod. & Ref.
4-26-90 Sand Hills Oil 4.
22-26-89 Prod. & Ref.
26-23-88 Bair Oil Co. 1.
24-26-87 Prod. & Ref. 20.
12-26-90 Texas Prod. Co.
35-25-88 M. M. Armstrong.
12-25-89 Govt. Land, Prod. & Ref. 1.
7-26-89 Prod. & Ref. 2, 3, 4.
33-26-88 SE, Prod. & Ref. 2.
25-27-90 Annabel Wyoming 1.
25-26-89 Prod. & Ref. 1.
25-26-88 Kasoming Oil D-2.
34-26-88 Kasoming Oil C-2.
11-26-90 Kasoming Oil 49-A, 27-A, 1-C .
27-26-87 Prod. & Ref. 23.
25-26-87 Prod. & Ref. 10.
14-25-89 Prod. & Ref. 1.

Shut Down

34-23-79 Central Pipe Line Co. 1.
2-26-90 SE, Prod. & Ref. 1.
24-26-87 Prod. & Ref. 20.
28-26-88 Govt. Land, Columbia Pet. 1.
25-26-89 SW, Bair Oil F-1.
26-26-88 Portland Wyoming 1.
9-25-88 SE, Sand Hills Oil 1, 2.
25-26-88 SE, Hughes Royalty 1.
9-29-90 Major Oil Co. 1.
Rigs, 5; wells drilling, 36; total, 41.

ROCK RIVER FIELD

Rigs

Rex Lake Dome, Laramie Oil & Dev. 1.

Wells Drilling

27-20-78 H. & C., Chio Oil Co. 1.
14-16-77 H. & H. Oil Co. 1.
27-16-77 U. P., Ohio Oil Co. 1.
34-20-77 Dixon, Ohio Oil Co. 9.
23-16-77 U. P., Ohio Oil Co.
14-15-75 SE, Wyoming Hollow Basin Oil 1.
26-21-79 SW, Southwest Pet. 2.
26-16-77 Coughlin, Ohio Oil Co. 2.
32-16-74 Govt. Land, G. A. Briggs et al 1.
20-21-80 U. P., Prod. & Ref. 1.

Shut Down

32-16-74 Spindle Top Oil & Gas.
24-16-77 G. R. MacConnell et al.
36-21-79 Southwestern Pet. Co.
25-21-79 Southwest Pet. Co.
12-19-78 Prairie Dog Oil & Gas 1.
4-19-78 Hutton Lake Oil.
18-15-75 Apex Ref. Co.
18-15-75 Pet. Oil Fields.
12-20-77 Govt. Land, McLaughlin et al.
10-18-77 Govt. Land, Carbon County Oil.
32-21-78 Govt. Land, Ross et al.
Rigs, 1; wells drilling, 21; total, 22.

FREMONT COUNTY

Wells Drilling

Shoshoni District, John C. Catleigh et al.
35-43-91 Utah Oil & Ref.
25-27-23-32-95 Prod. & Ref.
26-37-74 Wyoming Synd. 1.
15- 6- 2 SW, Union Oil Co. 13.
27-34-95 Dutton Basin, Texas Prod. Co. 13.
15-34-90 Ward Oil Co. 1.
34- 6- 3 Kinney Coastal 2.
15-32-90 Sand Draw, Prod. & Ref. 3.
23-32-95 Sand Draw, Prod. & Ref. 1.
9-32-95 Prod. & Ref. 2.
28-34-90 Ward Oil Co.
22- 1- 1 McDonald et al.
4-31-98 Derby Dome Wyo. Oil.
4-31-98 Burnside Oil Co.
24-33-90 Dutton Basin, Myers Pet. Co.

Shut Down

29-27-95 Fremont Pet. Co.
18-27-95 Sage Creek Pet. Co.
Rigs, 0; wells drilling, 18; total, 18.

OSAGE

Rigs

31-27-63 West Royalty Oil Co.
Faucett Ranch, Manlove et al.
31-46-63 Clark et al 1.
17-46-63 La Fleich Oil Co.
19-46-63 Sinclair Wyo.
31-46-63 Lusk Royalties Oil Co.

Wells Drilling

11-45-64 Frederick Oil Co. 1.
5-46-64 Fletcher Bros.
20-46-63 Byron-Gardner Co.
31-46-63 Tom Don Oil.
17-46-63 LaFleich Oil Co.

Shut Down

6-46-63 Osage Trust Co.
31-45-63 Bachellor Oil Co.
8-45-63 Griffith Oil Co.
Rigs, 6; wells drilling, 8; total, 14.

NATRONA COUNTY

Wells Drilling

7-36-81 Columbus Oil Co. 1.
15-34-87 NE, Mutual Oil Co.
32-37-81 California Co. 1.
36-37-82 SW, Midwest Ref. 1.
31-40-80 Comet Synd. 1.
Poison Spider, Fargo Oil Co. 24, 25, 26.
10-36-85 Boone Dome, New York Oil.
12-32-83 New York Oil 10.
9-35-85 New York Oil Co. 4.
28-11-81 Tisdale, Midwest Refg. 1.
23-34-82 Bradford Wyoming 1.
22-36-82 Gotnberg Dome, California Co.
Schnoor Dome, Kinney Coastal Oil Co.
5-39-80 Govt. Hill, Vernon Oil Co.
7-36-81 Arkansas Nat. Gas Co.
10-37-85 Midwest Ref.
2-37-85 Marland Oil Co.

Shut Down

35-35-84 Alaska Dev. Co. 3.
2-34-83 California Oil Co.
12-34-84 Cheney et al.
Lox Dome, Lox Syndicate.
9-41-80 Pat O'Conner 1.
Rigs, 0; wells drilling, 24; total, 24.

LINCOLN COUNTY

Rigs

31-28-113 Magie & Horn, Tip Top Synd.
12-29-113 Clinton Oil Synd.

Wells Drilling

3-26-113 Wyoming Reserve Oil Co.
27-27-113 Wyotah Oil & Gas Co.
3-26-113 Superior Oil & Gas.
1-28-113 Midwest Ref. Co.

Shut Down

Afton Dist., Idaho Wyo. Oil 1.
1-28-114 Lackey et al 1.
Rigs, 2; wells drilling, 6; total, 8.

BAXTER BASIN

Rigs

27-17-104 Montacal Oil 1.
7-17-103 Petrogas Oil 1.

Wells Drilling

26-17-104 NW, Prod. & Ref. 1.
11-17-104 Midwest Ref. Co. 6.
23-17-104 Asso. Oil Co.

Shut Down

10-16-104 SE, Midwest Ref. Co. 29.
10-16-104 NW, Midwest Ref. Co. 36.
2-17-104 NE, Midwest Refg. Co. 1.
25-18-104 Midwest Refg. 29.
30-18-104 Midwest Refg. 6-AX.
8-16-104 Montacal Oil Co.
Rigs, 2; wells drilling, 9; total, 11.

MISCELLANEOUS

Burris Dome, Salt Creek Mont. Giant.
21-31-79 Irvine Dome, Big Sioux Oil.
28-42-79 Burris Dome, Seattle Synd.

Wells Drilling

17-46-82 Tarrant Synd. 1.
20-21-80 Prod. & Ref. 1.
Buffalo Dist., Kinney Coastal 1.
20-21-80 Prod. & Ref. 3.
16-21-80 Prod. & Ref. 1.
21-48-82 Carter Oil 3.
26-27-61 Platte Wyo. Oil Co.
20-29-68 Glendo Dist., Nebraska Oil.
Guernsey Dist., Ill Synd.

Shut Down

16-48-82 Carter Oil 1.
Lingle Dist., Matthew Foreman et al.
18-39-68 Glendon Oil & Gas Co. 1.
Rigs, 3; wells drilling, 12; total, 15.

MONTANA

CAT CREEK

Rigs

12-15-28 NE, Shaffer Oil Co.

Wells Drilling

31-15-30 Michael Master et al.
8-15-29 Mutual Oil.
12-15-29 Catlett, Mid-Northern Oil.
9-15-27 Peerless Oil 2.
23-14-28 Winnett Pacific Oil 1.
1-15-28 Custer Oil & Gas.
28-16-28 Republic Peerless Oil.
9-15-29 NE, Frantz Corp.
7-15-25 NW, Hogan Oil 2.
9-15-29 Mid-Northern Oil.
29-14-29 Flatwillow Oil.
27-15-30 Frantz Corp.

Shut Down

10-15-29 Fifty-Six Pet.
22-15-30 A. D. Miller et al.
11-15-30 Helena Cat Creek Oil.
20-15-30 Montacal Oil.
8-15-29 Logan Corp.
15-15-30 Mont. Synd.
24-15-30 Swartz et al.
11-15-30 Miles City Oil.
Rigs, 1; wells drilling, 20, total, 21.

SUNBURST FIELD

Rigs

20-35- 2 Jarrett, Sunburst O. & G.
21-35- 2 McMannus, Hesla Oil 3.
25-35- 2 McKee, California Oil 4.
30-35- 1 Stannard, Wallace 2.
14-35- 2 O'Haire Oil Co.
19-35- 1 Bluhme, Noyes et al.
34-35- 3 Lewis, Lewis Kevin Oil Co.
11-35- 2 Stockman Bank, Ohio Oil 2.
2-34- 2 Shoemaker, Lilly et al.
7-35- 1 SW Hager, Stevenson Oil.
25-36- 2 Kashin, Ohio Oil 1.
20-35- 2 Whitman, Homestake Explo. 1.
30-35- 2 Heckla Oil Co. 1.
7-22- 2 Mutual Oil Co.
20-32- 2 Crumley, McKnight 1.
26-35- 2 Beaver Montana Oil 2.

Wells Drilling

12-35- 2 Barth, Hager Stevenson Oil.
29-35- 1 Anderson, Sylvester Oil 2.
32-36- 2 Roundsley, Sunburst O. & G.
22-35- 2 Newman, California Co. 2.
21-34- 1 Stockman Bank, Potlatch O. & G.
24-33- 1 Shelby Syndicate 1.
28-37- 2 MacAlpine, Spartan Oil 1.
20-35- 2 Halter, Sunburst Prod. 2.
4-34- 2 Whitman Corey 2.
2-35- 2 Carter Lind 2.
7-34- 1 Russell Harte 1.
24-35- 2 Zimmerman, Wells Oil Co. 2.
2-35- 1 Skilton, Sweet Grass Arch. 2.
7-34- 1 Dakota-Montana.
4-34- 2 Corey, Johnson Oil Synd. 2.
34-35- 1 Jerring, First International.
25-35- 2 Abell, Rochester Anoka 2.
5-34- 2 Sweeney, Regal Oil Co.
7-34- 1 Harte, Russell Oil et al.
18-34- 1 Skinner, Creel et al.
25-35- 2 Stannard, Wyomont 4.

Shut Down

3-35- 3 Baum, Colfax Pet. Co.
23-23- 1 Webb, Shelby Oil & Gas.
21-35- 1 White, Jones Oil 1.
3-33- 1 Seward, Sunburst Oil 1.
18-32- 4 Beck, Petroleum 1.
12-34- 1 Peterson, Lucky Forty Oil Co.
21-35- 2 McGowan, Holding & Royalty Oil.
13-33- 3 Campbell, Campbell Syndicate 4.
16-34- 2 NW Rainbow Oil Co.
21-35- 3 NW, Shaffer Oil 1.
1-34- 2 NE Sunburst Oil & Gas
13-35- 3 Goderts, Campbell Syndicate 4.
Rigs, 16; wells drilling, 33; total, 49.

MISCELLANEOUS

Rigs

Livingston Dome, Whiteside et al.
Porcupine Dome Stellar Oil & Gas.
Great Falls Dist. Virgelle Oil Co. 1.
24-15-15 Fullerton Oil Co.
12-10-32 Higgard Oil Co.
4-38-29 Boundary Butte, Mid Northern Oil.
Coal Ridge West Virginia Oil Co.
4-50-100 Florence Oil Co.

Wells Drilling

9-31-19 Deny, California Co. 1.
35- 7-13 Churchwell et al.
11- 1-29 Absaroka 3.
26- 1-21 Moddrell, Mid-Northern Oil.
5- 2-24 NE Pennsylvania Kentucky Oil 1.
28-16-27 NE Greer Brothers.
21-14-28 Flatwillow, Blackhawk Oil.
14-14-25 Flatwillow, AMZ Syndicate.
25-35- 2 Adams, Anderson Invest. Co.
1-34- 1 Adams, Anderson Invest. Co.
28-16-27 Brush Creek Synd.
13- 1-21 Putnam, Midwest Ref. Co.
24- 4-61 Absaroka Oil & Dev.
24- 5- 8 Potter Basin Oil & Gas.
8- 4-23 NE Hoosier Oil Co.
28- 8-21 Absaroka Oil & Development.
18-32- 4 Beck Petroleum.
18- 3-23 Securities Prod. Co.
30-15-26 Winnett Shallow Oil Synd.
24- 7-16 NE California Co. 1.
29-11-23 Mont. Pioneer Oil 2.
22-25-20 Butler Oil & Gas.
24-20-12 Continental Prod. 1.
17- 3-19 Snyder, Mid-Northern Oil 1.
22-23-12 Hager Stevenson 1.
7- 4-22 Security Pet. 1.
7- 4-22 Security Pet. 1.
4-17-20 California.
18-24- 7 Cascade Oil & Gas.
21- 1-21 Maddrell 2.
23- 1-21 Midwest Ref. Co.
17-39-20 Alaska Bruch Synd.
20-24- 1 C. A. McDonald et al.
2-28- 3 Dry Fork Oil Co.
32- 4-16 Consolidated Oil & Gas Co.
35- 1-21 Midwest Ref. Co. 1.
21- 5-25 Record Pet. Co.
10-18- 2 Moscow Oil Co.
4- 2-27 Mid-Northern.

Shut Down

20-25- 5 Larson, Walter Bright.
32-22- 3 Reese, Greater Great Falls Oil Co.
32-30-2 Denzer, Drake Oil Co.
2-26- 6 Edmund Jones, Walter Bright.
13- 3-23 SW Securities Prod. 4.
9-11-24 NW Absaroka Oil & Dev. Co.
21-14-28 Blackhawk Oil.
21-30- 3 Turner, Fergus Oil & Gas.
22- 2-25 McMennanin et al.
18- 6-24 Minnemyer & Newman.
3-12-25 Minnesota Flatwillow.
15-27- 7 Kelly, Empire Oil Co.
6-13-14 Fulton Oil Co.
26-14-20-NW Jackson Dome Oil.
7-27- 1 Tri City Oil Co.
18-26-26 Walker Brothers.
12-11-23 Armstead Oil Co.
Devils Basin Alberta Block Coal Co.
Big Coulee Midland Petroleum.
12-18-13 Arrow Creek Petroleum.
28-13-25 Wayne Petroleum.
35- 2- 7 Gladys Bell Oil Co.
Coalwood Dome, Annamay Oil Co.
Hailstone Basin, Hailstone Basin Oil Co.
Devils Basin Montana Central Oil.
Devils Basin Monarch Oil.
24- 5-17 Unit Oil & Gas.
23- 2- 5 Fox et al.
23- 3-24 Davis Creek Syndicate.
33- 5-28 Beauvois Oil Co.
12-11-13 Kalispel Syndicate.
6- 5-25 Grey Eagle Oil Co.
23-11-24 Success Ref. Co.
8-36- 1 Montana Idaho Oil Co. 1.
20-30- 1 A. M. Barringer.
31-15-45 Crowrock Oil Co.
6- 6-17 Armstead Oil Co.
2- 2-26 Clarks Fork Oil Co.
11- 1- 1 Ruby Ridge Oil Co.
Rigs, 3; wells drilling, 78; total, 86.

COLORADO

Rigs

29-10-68 Wellington, American Pet. Co.
2- 9-69 Douglas Oil Co.
12-38-70 Green Mt. Pet. Co.
31- 9-68 Midway Oil & Gas.
10- 2-70 NW Mullin Syndicate.
27- 2-70 Rainbow Oil & Dev.
7- 9-68 Union of California.
13-12-88 Little Snake River, Ohio Oil.
30-27-45 Lamar Oil Co.

Wells Drilling

33- 5-91 Weyland, Texas Prod. Co.
16- 4-91 State Land, Texas Prod. Co.
9- 4-91 Meyers, Texas Prod. Co.
28- 5-91 NE Hamilton. Salt Creek Co.
32- 4-89 Beaver Creek, Transcontinental Oil Co.
24- 4-93 Axial Basin, California Co.
32-31-65 Union Oil of California.
22-29-13 Farmington Pet. Co.
28- 5-91 Texas Production Co.

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Classified Wants Section

16- 4-69 State, Midwest Refining Co.
22- 4-92 Iles Dome, Midwest Ref. Co.
23-104 Peerless Oil Corp.
28- 2-70 Haystack Structure, Sand Hills Oil Co.
8- 9-68 NE Union of Colorado.
28- 2- 7 Gehring, I. A. Deline et al.
31- 2-96 White River Dev. Co.
2-11-33 Gem State Pet. Co.
25- 5-99 Elk Springs Dev.
28- 2-70 Sand Hills Oil Co.
Pueblo Dist. Chico Basin Oil & Gas Co.
24- 9-69 SW Wellington Oil Corp.
25-33-13 J. A. Leidecker et al.
28- 2-70 Ohio Oil Co. 1.
23-31-65 Colorado Oil Co.
34- 2-69 Johnson 1.
6- 9-68 Scott, Union Oil California.
36- 9-69 State, Union Oil of California.
18-20-46 Ne-No-She Oil Co.
35-22-65 San Carlos Oil Co.
14- 4-92 Ahern, Yarg Prod. Co.
20- 1-93 Marland Oil Co.
30- 4-68 Panuco Exploration Co.
34- 2-69 Ullom 1.

Shut Down

23- 3-64 Eman Oil Co.
19- 5-68 Dry Creek Oil & Gas.
1-22-60 Jones Point Oil Co.
36- 5-52 Estes Park & Big Basin Oil Co.
30-20-63 Eagle Rock Oil Co.
3-35- 58 Las Animas Syndicate.
5-26-65 Moody Lake Oil Co.
22-23-13 Love et al.
15-21-64 Hall & Allen.
32-20-63 Salida Oil Ref. Co.
34- 5-91 Rennie, Texas Prod. Co.
Rigs, 9; wells drilling, 44; totals, 53.

UTAH

Rigs

37-41-19 Utah Southern Oil Co.
25-20-21 Utah Oil Ref. Co.

Wells Drilling

23-42-17 Government Land, Monumental Oil.
Virgin Field Gustaven Oil Co.
Rozal Dist. Leouna Mining & Milling.
Rozal Dist. Lake Side Oil Co.
34-25-21 Big Six Oil Co.
31-40-18 Texas Prod. 1.
22- 3-24 SW Prod. & Ref. 1.
16- 2- 5 State Land, Western Empire Oil.
23-42-17 Govt. Land, Monroe Oil Co.
6- 2- 6 Ohio Oil Co. 1.
Crescent Dome Crescent Eagle Oil Co.
Diamond Fork Gustaven Oil Co.
31-32-18 Union Oil of Utah.
12-19-13 Utah Oil & Refining.
17- 4- 6 Utah Southern and Ute Pet.
13-14- 9 Castle Dale Oil.
27-16- 4 Producers Oil Co.
Lakeside Dome W. R. Holmes.
Diamond Fork Franco Utah Oil Co.
25-13- 1 Cash Valley Oil Synd.
2-17- 3 Utah Central Oil Co.
Harrisburg Dome Virgin Oil Co.
Evans Claim Uinta Oil Co.
Hill Creek Hill Creek Oil & Ref.
Hill Creek Mutual Oil Co.
Rigs, 2; wells drilling, 25; total, 27.

NEW MEXICO

Rigs

15-23-24 Floresheim Oil Co.
5-30-13 H. L. Williams.

Wells Drilling

3-27-17 Prod. & Ref.
17-26-18 SW, Gypsy Oil Co.
20-32-13 H. L. Williams 3.
17-31-13 H. L. Williams 4.
8-30-13 H. L. Williams 5.
23-23-13 Roy T. Clapp.
23-23-11 Bisti Oil Co.
Ute Dome J. A. Leidecker et al.
31-32-13 Four States Oil.
16-30-11 Aztec Oil Synd.
31-26-13 Coal Creek Oil.
34-30-11 R. A. Carter et al.
Beautiful Mountain Navajo Oil Co.
Vermejo Park Union of California.

Shut Down

6-14-13 San Juan Oil Dev. Co.
12-29-13 Shiprock Oil Co.
25-30-12 Hall et al.
14-29-11 Hubble & Hall.
Rigs, 2; wells drilling 18; total, 20.

WELLS COMPLETED

WYOMING

24-40-79 SE Wyoming Oil Fields 22-A.. 500
24-40-79 SE Wyoming Oil Fields 19-AX 100
25-40-79 SW Wyoming Oil Fields 10-A 20
24-40-79 SW Wyoming Oil Fields 31-A 75
24-40-79 SW Wyoming Asso. 15-A 200
2-39-79 NE Wyoming Asso. 4-A..... 200
1-39-79 NW Wyoming Asso. 32-A 80
24-40-79 NW Wyoming Asso. 34-A..... 690
15-40-79 SW Wyoming Associated 1-AX 20
2-39-79 NE Wyoming Associated 24-A 100
2-39-79 NW Salt Creek Con. 19-AS... 150
13-40-79 SE Mt. & Gulf 14-A 25
7-39 78 NW, Mt. & Gulf 15-A..... 25
27-40-79 NE Midwest Oil 20-A 100
22-40-79 NE Midwest Oil 10-A 100
1-39-79 NE Midwest Oil 12-A 15
36-40-79 NE Mid. & Wyo. Asso. 32-A 25
36-40-79 SW Mid. & Wyo. Asso. 23-A 80
30-40-78 NW Utah Oil & Ref. 25-A.. .50
15-40-79 SE Prod. & Ref. 9 40
19-40-79 NW Prod. & Ref. F-3 400
19-40-78 NW E. T. Williams 4-A..... 50
19-40-78 SE Kinney Coastal 26-A 160
5-39-78 NW Western States 21-A 100
5-39-78 NE Western States 19-A 40
5-39-78 SE Carter Oil Co. D-6 70
5-39-78 SW Carter Oil Co. R-9 134
5-39-78 NW Carter Oil Co. D-10 60
5-39-78 NW Carter Oil Co. D-7 155
17-39-78 NE Carter Oil Co. P-11 30
32-40-78 SW Mutual Oil Co. 34-A 50
2-39-79 SW Mutual Oil Co. 11-A..... 60
20-39-78 SE Mammoth Oil Co. 409 25
20-39-78 SE Mammoth Oil Co. 410 200
30-40-78 SE Wyoming Asso. 21-A 25
11-39-79 NE Wyoming Asso. 22-A 50
4-39-79 NE Salt Creek Con. 15-A..... 50
6-39-79 NE Mt. & Gulf 3-A 40
7-39-78 Tract E, Ohio Oil Co. 20
12-39-79 East half, Ohio Oil 24 25
5-39-78 Marine Co. 1 C. R. 25
15-40-79 Kasoming 9 144
6-39-79 Kasoming Oil Co. 4-B 20
7-39-78 NE Kasoming Oil E-3 20
7-39-78 NE Kasoming Oil E-2 15
34-40-78 NE Midwest Oil Co. 1-A 70
6-39-78 NE Mt. & Gulf 21 160
31-40-78 NW Salt Creek Con. 15-A..... 60
3-39-79 NE, Salt Creek Con. 35-A..... 5
22-40-79 NE Midwest Oil 30-A 36
25-40-79 SW Midwest Oil 16-A 25
1-39-79 SW Mutual Oil 29-A 50
2-39-79 SW, Mutual Oil 34-A..... 70
2-39-79 SW Mutual Oil 29A 40
8-39-78 NW Mutual Oil 4-AXS 50
23-40-79 NE Wyoming Asso. 22-A 200
11-39-79 NW Salt Creek Con. 3-A 180
3-39-79 SW Salt Creek Con. 3-A 200
3-39-79 NE, Salt Creek Con. 15-A.... 70
7-39-78 NW Salt Creek Con. 15-A..... 121
1-39-78 Dam 9, Ohio Oil 16 50
13-39-79 Castle Rock 1, Ohio Oil 9..... 30
13-39-79 Tract O, Ohio Oil 5 30
28-35-65 Buck Creek Oil Co. 6 ..... dry
33-56-97 Cross, Ohio Oil 1 ..... gas
3-26-90 Texas Prod. Co. 2 900
2-26-90 Utah Oil & Ref. 1-A ..... dry
5-23-89 Utah Oil & Ref. 1 ..... dry
25-26-87 Prod. & Ref. 22 ..... dry
6-23-88 Kasoming Oil 1 ..... gas
26-26-88 Kasoming 40
20-46-63 Sankey & Stahl 20
12-33-83 New York Oil 10 25
22-16-104 Poston, Ohio Oil 1 ..... dry
26-18-104 Midwest Ref. Co. 1-X ..... gas
25-20-80 Hatfield Oil Co. 1. ..... gas
11-26-90 Prod. & Ref. 150

Wells completed 78
Production 7525
Dry 5
Gas 4
Gas production 64,000,000

MONTANA

11-15-29 Fifty Six Pet. ..... dry
21-15-30 Mitchel, Weowna 2 25
2-34- 2 Steel, Big West Oil 200
4-34- 2 Moore, Queen City 5 300
5-32- 2 Britton, Midnorthern Oil 90
33-36- 2 Roundsley, Ohio Oil 75
30-35- 1 Maughan, Ohio Oil 1 22
5-34- 2 Moore, Elliott & Callender .... dry
3-34- 2 Swift, Spartan Mont. ..... dry

Classified Wants

Pages 126-127

4-34- 2 Storme, Van Meer Oil ..... dry
31-35- 2 Tibbets, Guy Craig et al ..... dry
29-35- 1 Red Deer, Anderson 50
4-34- 2 Newton McMurray 2 75
33-35- 2 Halloran, Homesteak Expo. ... 100
36-35- 3 State, Featherrtone Oil 2..... gas
32-36- 1 Fertig Putnam 50
8-34- 2 Bill Thomas. Hurley 2. 50
10-35- 2 Beardsley, Burns 2..... 25
4-34- 2 Corey, Crumley, McKnight 3.. 500
1-35- 2 Lewis, McQuire Synd. 40
4-34- 2 Storme, Shoshone Oil 5 1000
4-34- 2 Moore, Queen City 6 50
34-36- 2 Davey, Ohio Oil 100
4-34- 2 Corey, Crumley McKnight 4... 300

Wells completed 24
Production 3027
Dry 5
Gas 1
Gas production 1,000,000

COLORADO

30- 8-68 Whittaker, Union Oil of Cal...2000
6- 9-68 Mitchell, Union Oil of Cal..... gas
16- 4-92 Moffat, Hogan and Transcontinental ..... dry

Wells completed 3
Production 2000
Dry 1
Gas 1
Gas production 25,000,000

PLANNING TO TEST ALDAMAS DISTRICT

AUSTIN, Tex., Sept. 6.—After several years of negotiations for leases and perfecting of titles arrangements have been made for exploring the Aldamas district of Mexico for oil. The first test well is now being drilled upon a tract of land which is under lease to the Coursen-Matches interests. Production possibilities of the region around Aldamas, extending from the Rio Grande southward to a point within 50 miles of Monterey and having a width of 6 to 40 miles have attracted attention of oil men. This area is believed to be a combination of the producing fields in the lower Rio Grande border region of Texas, situated to the south and east of Laredo.

The Aldamas structure has been described by geologists as being much larger and more probably oil bearing than any other structure known. It is referred to as the 'famous Aldamas structure," and on it practically every big oil interest in Mexico and the United States has acreage.

Standard Oil, Mexican Petroleum, Corona, Dutch Shell, Agwi, Sinclair, Tide Water, International and others all have acreage.

One geologist has described the structure in a private report as being 40 miles east of the Cerralvo Mountains and with the more favorable part about 16 miles in length and about 6 miles in width. It is exceptionally well defined. The central part of the structure is 25 miles from the Rio Grande.

Look For These Points In A Chain Wrench

Flat Link or Cable Chain Eight Sizes For 3/16" to 10" Pipe

Handle should be forged flat, not round, for greatest strength.

Chain pocket should be located in the handle where there is most strength to resist the drawing strain.

Only by insisting on the TRIMO can you get these important design features that insure maximum service from a chain wrench.

TRIMONT MFG. CO.
Roxbury, Mass.

TRIMO

7166

Oklahoma-Kansas and Eastern Pipe Line Report

OKLAHOMA-KANSAS PIPE LINE STATEMENT FOR JULY

Runs

	Month	Dy. Av.
*Prairie P. L. Co.	3,534,000	114,000
Gulf P. L. Co.	1,188,157	38,327
Texas P. L. Co. of Okla.	354,877	11,449
Magnolia Pet. Co.	1,061,532	34,243
Empire P. L. Co.	850,573	27,438
Cosden P. L. Co.	1,027,411	33,142
*Sinclair P. L. Co.	1,224,624	39,504
*Other lines	8,153,000	263,000
Total July	17,394,174	561,103
Total June	16,592,806	553,093
Difference	801,368	8,010

Shipments

†Prairie P. L. Co.	3,617,585	116,696
Gulf P. L. Co.	1,094,565	35,309
Texas P. L. Co. of Okla.	443,971	14,322
Magnolia Pet. Co.	1,040,230	33,556
Empire P. L. Co.	735,385	23,722
Cosden P. L. Co.	839,149	27,069
†Sinclair P. L. Co. (est.)	1,674,000	54,000
*Other lines	7,657,000	247,000
Total July	17,101,885	551,674
Total June	16,485,850	549,527
Difference	616,035	2,147

Stocks

*Prairie P. L. Co.	23,500,000
*Prairie Oil & Gas Co.	2,000,000
Gulf P. L. Co. and Gypsy Oil Co.	9,464,090
The Texas Co.	7,094,322
Magnolia Petroleum Co.	8,473,266
Empire P. L. Co.	3,342,617
Cosden P. L. Co.	2,939,725
*Sinclair P. L. Co.	29,000,000
Carter Oil Co.	18,246,330
*Other lines	9,200,000
Total July	113,260,350
Total June	111,714,192
Difference	1,546,158

*Estimated. †Includes shipments of Texas crude oil.

Note: Stocks do not include approximately 8,300,000 bbls. of crude oil held in storage on private tank farms and leases.

Runs From Wells

In the following table will be found the regular receipts from wells by various pipe lines in New York, Pennsylvania, West Virginia, Ohio, Kentucky and Indiana for May and June:

	May, '24.	June, '24.
Nat. Transit	199,626.14	185,964.53
S. W. Pa. P. L.	85,544.16	84,784.18
Eureka P. L.	372,494.35	360,470.64
Buckeye P. L. (Macksburg)	258,024.34	245,849.66
Buckeye P. L. (Cleveland)	15,210.59	15,114.06
Buckeye P. L. (Lima, etc.)	145,504.50	149,517.93
Indiana P. L.	12,812.12	13,211.64
Cumberland P. L.	372,609.80	352,152.78
N. Y. Transit	19,947.74	19,920.01
Tidewater P. L.	152,075.52	146,705.68
Pure Oil P. L.	188,558.69	180,842.04
Emery P. L.	35,511.41	35,188.79
Indian Refining	66,447.27	60,342.51
Paragon Dev.	41,802.11	34,461.48
Pittsburgh P. L.	8,903.97	7,792.56
Swiss P. L.	.....	.....
Riggs Refining	6,124.29	4,582.41
Total	1,980,197.00	1,896,900.90
Daily average	63,941.84	63,230.03

—Note: Indian Refining Co. also reported other receipts of 309,849.78 bbls. Paragon Refining Co. had other receipts of 142,866.43 bbls. Paragon Development Co. had other receipts of 4,510.65 bbls. Pittsburgh Pipe Line had other receipts of 510.53 bbls.

Petroleum Deliveries

The following tables exhibit the shipments or regular deliveries of various pipe lines in New York, Pennsylvania, West Virginia, Ohio, Kentucky and Indiana for May and June:

	May, '24.	June, '24.
National Transit	373,131.02	349,447.13
S. W. Pa. P. L.	253,585.74	236,010.50
Eureka P. L.	112,059.21	123,095.03
Buckeye P. L. (Macksburg)	100,473.73	325,987.67
Buckeye P. L. (Cleveland)	1,214.64	1,451.07
Buckeye P. L. (Lima, etc.)	680,684.61	601,546.36
Indiana P. L.	931,269.90	830,895.76
Cumberland P. L.	151,162.89	133,254.79
Southern P. L.	.....	7,735.85
Crescent P. L.	.....	.....
N. Y. Transit	507,491.63	668,690.48
Northern P. L.	80,309.14	120,463.56
Tidewater P. L.	130,310.85	121,407.61
Pure Oil P. L.	204,887.66	167,288.07
Emery P. L.	38,385.97	43,773.94
Paragon Ref.	181,821.26	154,584.15
Indian Ref.	381,740.52	348,715.10
Paragon Dev.	44,760.63	45,650.74
Pittsburgh P. L.	11,634.19	10,292.56
Total	4,184,923.59	4,290,290.36
Daily average	134,997.50	143,009.68

Note: Indian Refining Co. also reported other deliveries of 91.80 bbls.

Gross Stocks

The gross stocks held by various pipe lines in the oil producing section of New York, Pennsylvania, West Virginia, Ohio, Indiana and Kentucky at the close of May and June were as follows:

	May, '24.	June, '24.
National Transit	969,330.61	927,291.38
S. W. Pa. P. L.	740,981.21	766,214.63
Eureka P. L.	1,910,892.33	1,857,807.14
Buckeye P. L. (Macksburg)	576,679.85	454,683.96
Buckeye P. L. (Cleveland)	16,959.02	33,775.28
Buckeye P. L. (Lima, etc.)	3,184,697.93	3,506,557.58
Indiana P. L.	628,594.63	617,911.92
Cumberland P. L.	568,123.90	583,831.13
Southern P. L.	512,624.99	596,507.15
Crescent P. L.	80,724.80	77,167.35
N. Y. Transit	704,366.99	726,304.69
Northern P. L.	763,364.39	719,712.09
Tidewater P. L.	.....	.....
Pure Oil P. L.	359,255.82	373,121.94
Emery P. L.	21,790.55	13,932.36
Paragon Ref.	175,717.01	166,689.08
Indian Ref.	101,113.46	118,544.29
Paragon Dev.	11,370.55	8,834.23
Pittsburgh P. L.	7,521.89	5,683.28
Swiss P. L.	.....	.....
Riggs Ref.	1,299.14	834.95
Total	11,335,309.07	11,544,204.42
Increase	412,566.99	208,895.35

Grades of Oil

The following table shows the amount of the different grades of oil held by the Eastern pipe lines at the close of May and June, showing the gross stocks of the above fields:

	May, '24.	June, '24.
Pennsylvania	3,923,093.00	3,668,678.80
Lima	1,113,472.67	1,150,446.32
Kentucky	1,441,241.81	1,518,177.30
Mid-Continent	4,779,382.96	5,135,399.33
Illinois	78,118.62	71,502.67
Total	11,335,309.07	11,544,204.42

Daily Average Runs

The following table shows the daily average runs of the Pennsylvania, Lima and Kentucky oil fields for the past four years:

	1921	1922	1923	1924
January	64,460	67,702	75,790	62,638
February	70,054	75,096	71,093	68,022
March	68,555	78,531	76,592	68,721
April	65,036	75,462	75,614	71,058
May	65,466	77,592	77,365	63,942
June	62,438	76,193	77,593	63,230
July	69,486	76,435	71,879	.....
August	64,888	79,387	76,910	.....
September	60,110	78,512	72,368	.....
October	57,688	77,209	76,256	.....
November	58,470	75,313	70,762	.....
December	61,000	73,351	69,271	.....

Daily Average Shipments

The following table gives daily average shipments from the Pennsylvania Lima and other fields for past four years:

	1921	1922	1923	1924
January	115,550	119,792	171,067	145,518
February	96,736	111,362	164,219	148,732
March	84,168	127,753	185,487	147,098
April	101,015	127,068	170,751	147,611
May	100,253	127,840	177,102	134,997
June	105,037	137,638	173,598	143,010
July	97,096	137,872	168,330	.....
August	101,652	153,275	142,766	.....
September	117,440	158,761	137,266	.....
October	105,728	165,345	134,597	.....
November	121,803	166,677	131,426	.....
December	104,023	172,861	139,909	.....

Gross Stocks

In the following table will be found the gross stocks of the various lines of the Pennsylvania, Lima and Kentucky oil fields including oil received from other lines at the close of each month for the past three years:

	1922	1923	1924
January	16,297,858	14,049,567	12,997,320
February	17,009,293	14,028,437	11,844,000
March	16 877,937	13,873,146	10,990,752
April	16,777,842	13,737,575	10,262,742
May	16,948,962	13,816,622	11,253,700
June	16,810,169	14,541,253	11,544,204
July	16,669,286	14,645,584	.....
August	16,235,220	14,770,533	.....
September	16,228,545	14,803,444	.....
October	15,767,746	14,504,111	.....
November	15,171,972	14,157,726	.....
December	14,323,765	13,444,361	.....

Franklin Pipe Line Co.

The following table exhibits the condition of the Franklin Pipe Line at the close of business for the months named and accounted in the stocks and averages reported above:

	Receipts.	Shipments.	Stocks.
1923—			
June	2,927.71	4,743.78	21,981.71
July	2,996.64	1,471.67	23,446.68
August	3,199.07	3,769.34	22,876.41
September	2,829.79	6,822.38	18,883.87
October	2,694.23	5,251.81	17,324.79
November	3,980.66	4,150.98	16,154.47
December	2,893.07	3,499.37	15,548.27
1924—			
January	3,942.19	8,641.71	8,948.75
February	2,151.78	1,926.85	10,073.68
March	3,398.78	1,716.28	11,756.18
April	3,311.84	2,966.78	13,001.24
May	3,036.50	5,338.21	10,699.53
June	3,188.31	407.81	13,481.13

The Illinois Field

The following table gives the report of the Illinois Pipe Line Co. in Illinois:

Gross stocks, July 1	2,215,566.61
Runs from wells	696,792.24
Other receipts	130,361.71
Regular deliveries	474,433.66
Other deliveries	336,594.34

The amount of Illinois oil run by the Tide Water Pipe Line Co. in June was 29,358.53 bbls., and deliveries were 53,979.33 bbls. Adding these figures to those of the Illinois Pipe Line Co., makes the runs and deliveries from the Illinois field as follows:

	Runs.	Deliveries.
1923—		
June	532,511.83	593,137.77
July	594,653.42	489,380.77
August	594,747.94	367,153.83
September	542,661.59	306,925.40
October	576,867.09	347,313.83
November	546,859.43	295,092.90
December	634,185.04	283,543.64
1924—		
January	493,337.25	290,732.09
February	535,490.70	353,613.74
March	611,289.36	369,543.51
April	514,356.43	339,546.19
May	751,080.44	510,414.63
June	725,060.87	658,491.10

The Tide Water Pipe Co. Ltd., also delivered in June, 219,002.93 bbls. of Oklahoma oil. The total deliveries of all grades by the Tide Water were 394,380.97 bbls.

AVERAGE WEEKLY RECEIPTS OF CALIFORNIA OIL AT ATLANTIC AND GULF PORTS

Av. bbls. per wk.—	ATLANTIC PORTS						GULF COAST PORTS						Total All Ports
	Baltimore	Boston	New York	Philadelphia	Others	Total	Galveston	New Orleans Baton Rouge	Pt. Arthur Sabine Pass	Tampa	Total		
March	42,455	17,388	623,455	209,321	77,455	970,067	.....	.....	.....	.....	.....		970,067
April	39,669	17,969	614,369	88,200	52,269	812,476	.....	.....	.....	.....	.....		812,476
May	42,903	33,194	615,709	92,706	61,642	846,154	.....	70,127	.....	.....	70,127		916,281
June	121,800	34,300	581,000	103,369	51,331	891,800	.....	.....	.....	.....	.....		891,800

AVERAGE WEEKLY IMPORTS OF PETROLEUM AT PRINCIPAL UNITED STATES PORTS

Av. bbls. per wk.—	ATLANTIC PORTS						GULF COAST PORTS						Total All Ports
	Baltimore	Boston	New York	Philadelphia	Others	Total	Galveston	New Orleans Baton Rouge	Pt. Arthur Sabine Pass	Tampa	Total		
January	112,800	118,200	552,000	97,800	215,800	603,200	358,800	248,000	137,800	20,800	772,200		1,539,000
February	134,750	175,750	195,250	102,750	299,250	907,750	372,500	296,000	190,250	36,500	895,250		1,803,000
March	148,358	141,806	283,458	124,642	292,642	990,906	463,806	366,358	223,552	55,545	1,108,261		1,897,033
April	152,369	154,931	913,900	94,962	248,969	971,131	382,900	348,131	119,000	15,869	865,900		1,708,031
May	156,485	134,602	288,903	59,612	300,097	939,699	315,679	295,358	199,591	38,164	848,793		1,788,492
June	120,169	108,731	434,931	68,131	239,400	971,362	412,741	251,762	169,831	23,831	858,165		1,829,527

GROSS PRODUCTION AND DAILY AVERAGE IN THE UNITED STATES FOR 12 MONTHS

		California	Oklahoma	Texas	Kansas	Arkansas	Louisiana	Wyoming-Montana	Other Fields	Total
1923—										
August:	Month	26,440,005	14,049,076	12,157,429	2,316,320	3,292,580	1,952,349	4,290,406	3,479,077	67,977,242
	Daily average	852,903	453,196	392,172	74,720	106,212	62,979	138,400	115,969	2,193,550
September:	Month	25,762,487	12,812,220	12,879,682	2,234,730	3,164,900	1,787,430	4,561,550	3,269,561	66,472,560
	Daily average	858,750	427,074	429,323	74,491	105,497	59,581	152,052	105,468	2,216,750
October:	Month	24,576,400	12,961,782	15 933,383	2,336,346	3,120,274	1,837,990	3,640,880	3,475,913	67,783,968
	Daily average	792,787	418,122	513,980	75,366	100,654	59,290	114,223	112,126	2,186,580
November:	Month	22,397,848	12,334,620	15,556,507	2,268,840	2,973,000	1,816,860	4,792,466	3,138,464	65,278,605
	Daily average	746,595	411,154	518,550	75,628	99,100	60,562	159,782	104,615	2,176,186
December:	Month	21,899,247	12,232,259	10,065,856	2,345,150	4,017,850	1,919,574	3,304,326	3,147,812	58,932,074
	Daily average	706,427	394,589	324,705	75,650	129,608	61,922	106,591	101,542	1,901,056
1924—										
January:	Month	20,912,500	12,292,833	10,336,643	2,233,878	3,686,680	1,601,175	4,636,230	2,950,500	58,644,439
	Daily average	674,597	396,543	333,449	71,738	118,925	51,651	149,556	95,177	1,891,631
February:	Month	19,341,226	12,236,637	10,495,486	2,112,853	3,302,750	1,497,450	4,168,450	2,997,700	56,153,552
	Daily average	666,939	421,953	361,913	72,857	113,888	51,629	143,740	103,369	1,936,329
March:	Month	19,913,262	13,336,851	13,077,617	2,206,425	3,882,695	1,701,592	3,993,890	3,258,000	60,370,332
	Daily average	642,363	430,221	389,601	71,175	125,248	54,890	128,835	105,097	1,947,430
April:	Month	19,299,849	13,452,240	11,725,830	2,265,090	4,068,225	1,495,582	3,901,755	3,231,000	59,439,571
	Daily average	643,328	448,408	390,861	75,503	135,608	49,853	130,058	107,700	1,981,319
May:	Month	19,833,576	14,248,057	11,923,316	2,486,696	4,659,117	1,596,701	4,033,564	3,355,000	62,136,027
	Daily average	639,793	459,615	384,623	80,216	150,291	51,507	130,109	108,226	2,004,388
June:	Month	18,807,999	14,457,390	11,515,020	2,473,320	4,756,443	1,811,880	3,793,834	3,211,500	60,631,386
	Daily average	626,933	481,913	383,834	82,444	158,548	60,419	126,521	107,050	2,021,179
July:	Month	19,274,755	15,191,860	11,820,589	2,678,834	4,698,160	1,931,641	3,726,525	3,387,990	63,612,354
	Daily average	621,766	490,060	381,319	86,414	148,321	62,311	120,275	109,290	2,053,301
Total 12 months		258,459,154	159,605,825	146,487,658	27,948,474	45,522,674	20,960,225	48,750,676	38,902,507	706,637,193
Daily average		706,173	436,081	400,202	76,332	124,379	57,241	133,199	106,291	2,003,908

Bottom of 80000-Barrel Tank

"WILSON WELDED"

"WILSON WELDED"—that means the job was done cheaper and quicker than it would have been done otherwise. But what is of *more importance,* "Wilson Welded" means that the tank is *stronger and tighter.* That is why so many oil companies are now building "Wilson Welded" tanks — they save money. The picture above shows one of the two 80000-barrel tanks being erected by the Sinclair Refining Company at Tremley, N. J. Wilson Welding Machines and Wilson Welding Wire are used exclusively.

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WILSON

WELDING MACHINES AND WELDING WIRE

The Oil and Gas Journal, issued weekly by The Petroleum Publishing Company, 114-116 West Second Street, Tulsa, Oklahoma. Subscription price $6.00 a year; 15 cents a copy. Entered as second-class mail matter December 15, 1911, at the postoffice at Tulsa, Okla., under the Act of March 3, 1879.

In an Interesting Article on

Causes and Preventives of Casing Collapse

Harry Pennington, Mechanical Engineer, has this to say:

Cementing the hole from top to bottom outside of the water string makes a safer job, both as to pipe failure and as to migration of oil, gas or water along the well bore, and particularly where the safety factor is low. The Tonkawa Pool, Oklahoma, so cemented to shut off and seal several upper gas sands with rotary, had a short surface string of 12½-inch, then a single string, 8¼-inch, placed just above the sand and cemented from bottom to top while swinging just off of bottom. Cementing all the way up was primarily for controlling five heavy gas sands above the big pay, but this cement also protects the hole against caving, the pipe against collapse, and affords continuous protection against corrosion and consequent casing leaks in after years that might otherwise occur. Cementing while hanging completely off of bottom and not moved thereafter, straightens out a string.

This method fills the necessity for shutting off upper water, oil and gas sands, makes the well safer than if several outer upper strings were used for the same purpose, because no long strings of large casing are used and in addition, the casing is supported by the cement and caving is prevented. Tracking or channelling can be overcome with further use, and the hole filled with cement entirely, to secure a bond between casing and well wall with cement, which makes an ideal cementing job.

No well, cable-tool or rotary, has been properly completed that is not properly cemented. We are undisputed leaders in scientific oil well cementing because of our control in the Mid-Continent of the Perkins process, our patented measuring tape, the Halliburton mixer and our experience in cementing more than 4,000 wells—Write us for further details.

HALLIBURTON OIL WELL CEMENTING CO.
Duncan, Oklahoma

If you believe in insurance, you believe in oil well cementing

113

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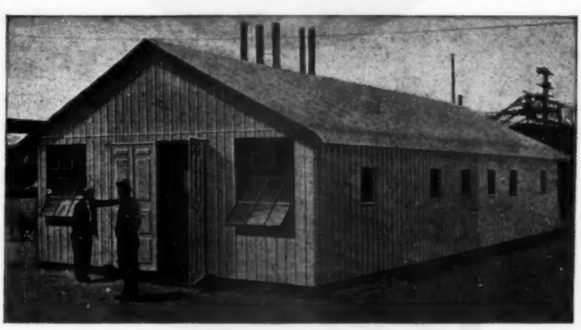

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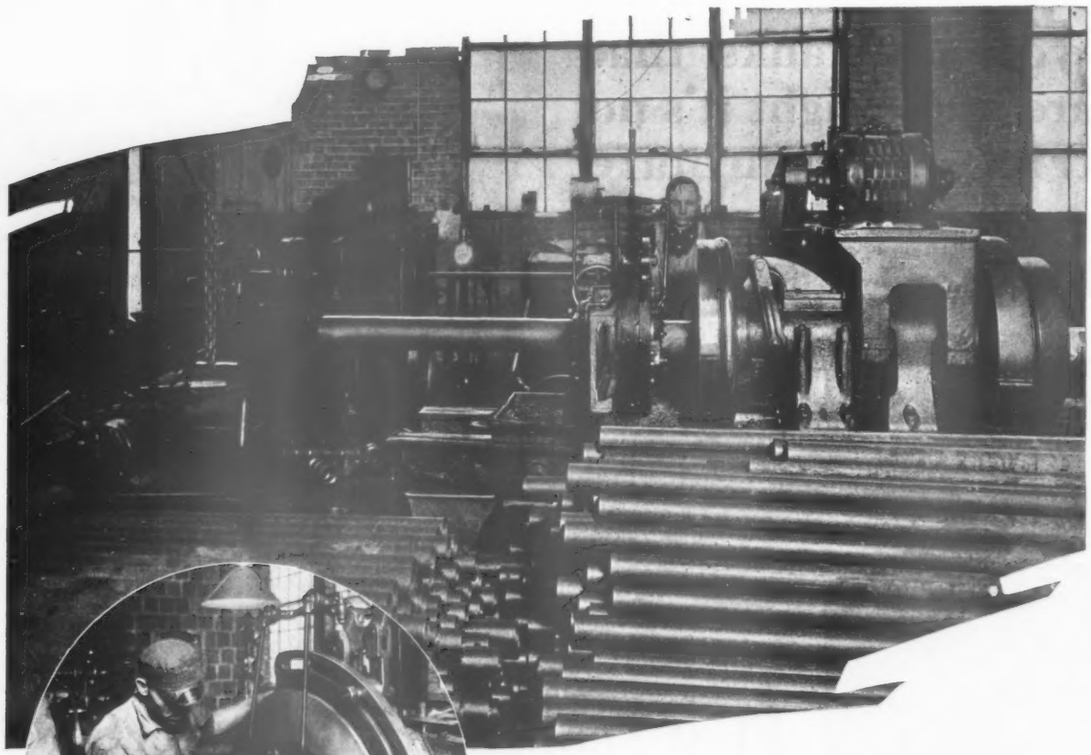

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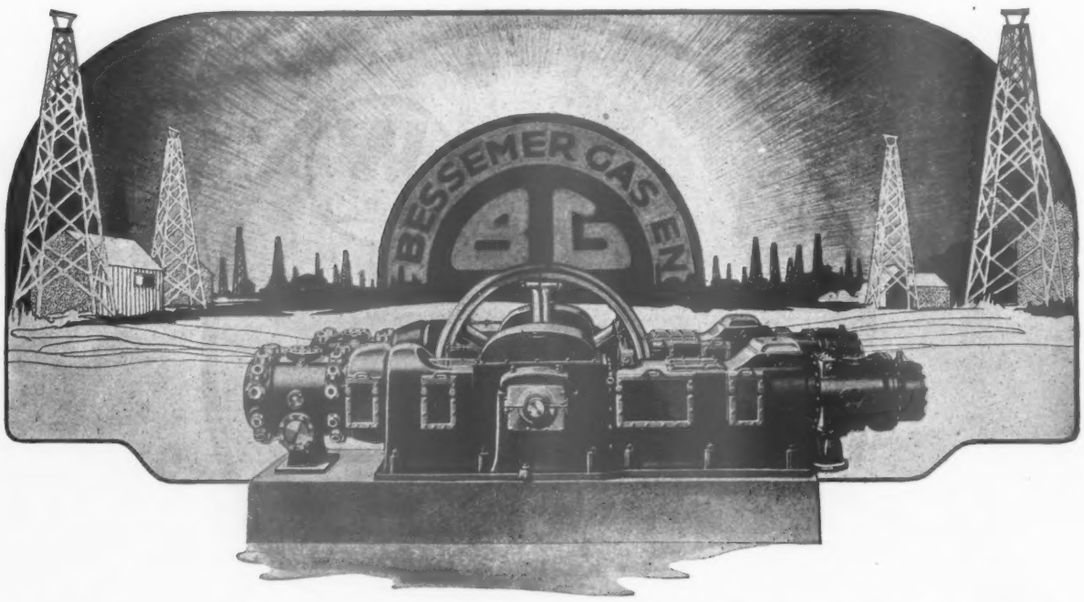

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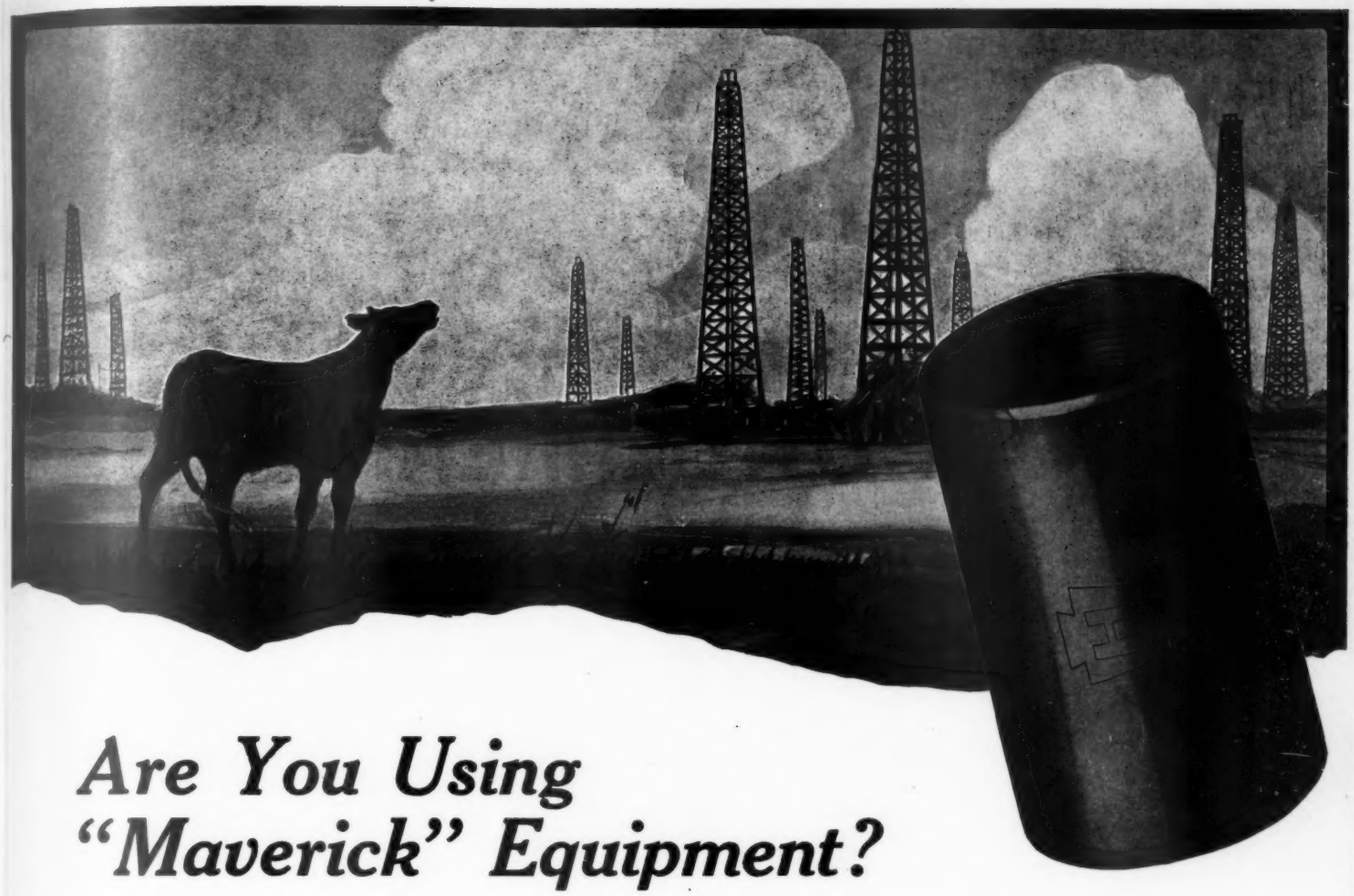

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Forged Seamless Steel Couplings

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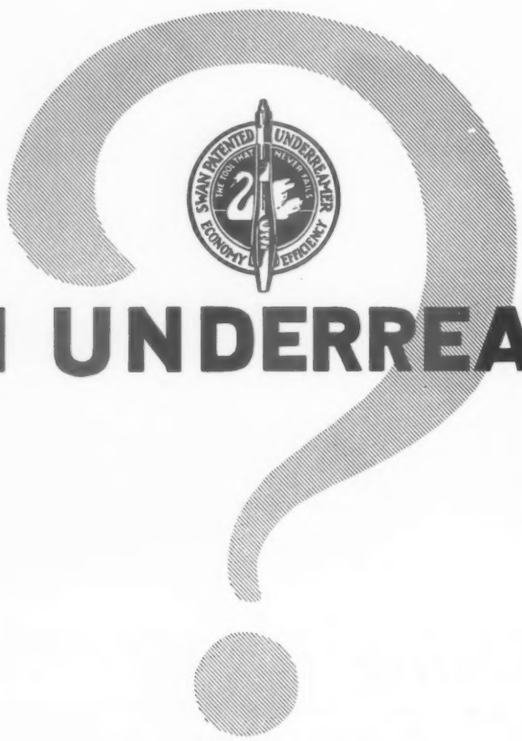

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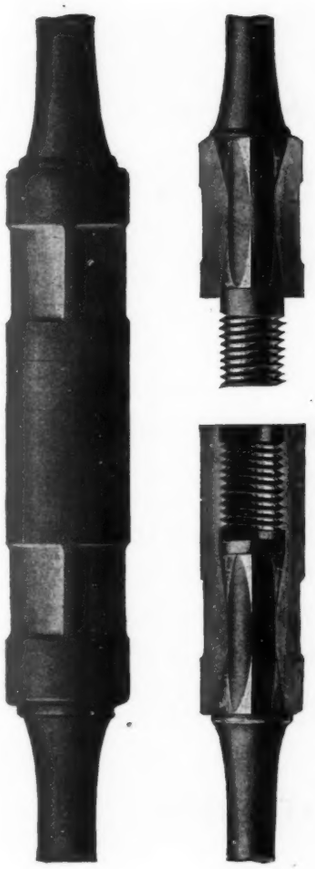

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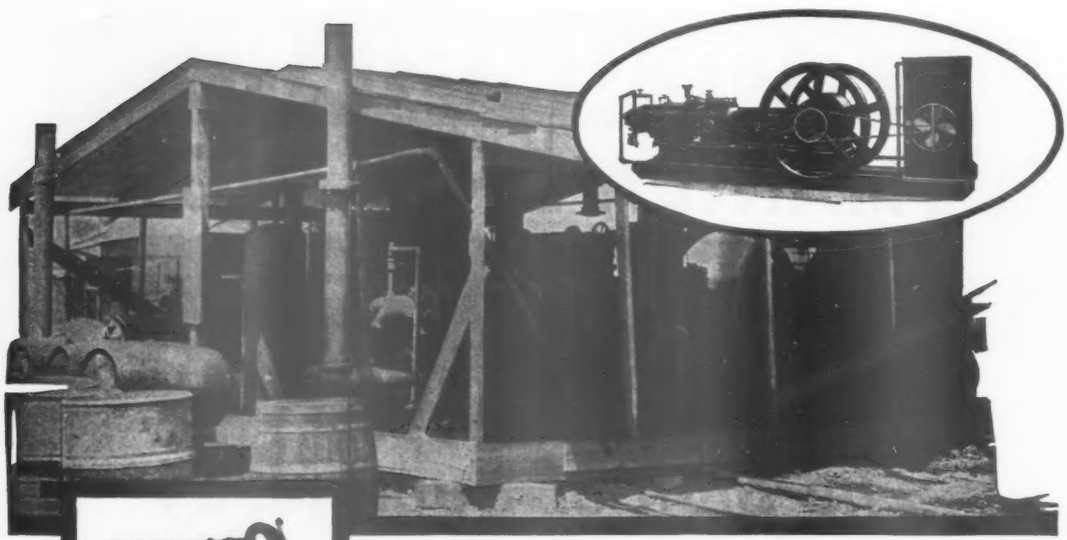

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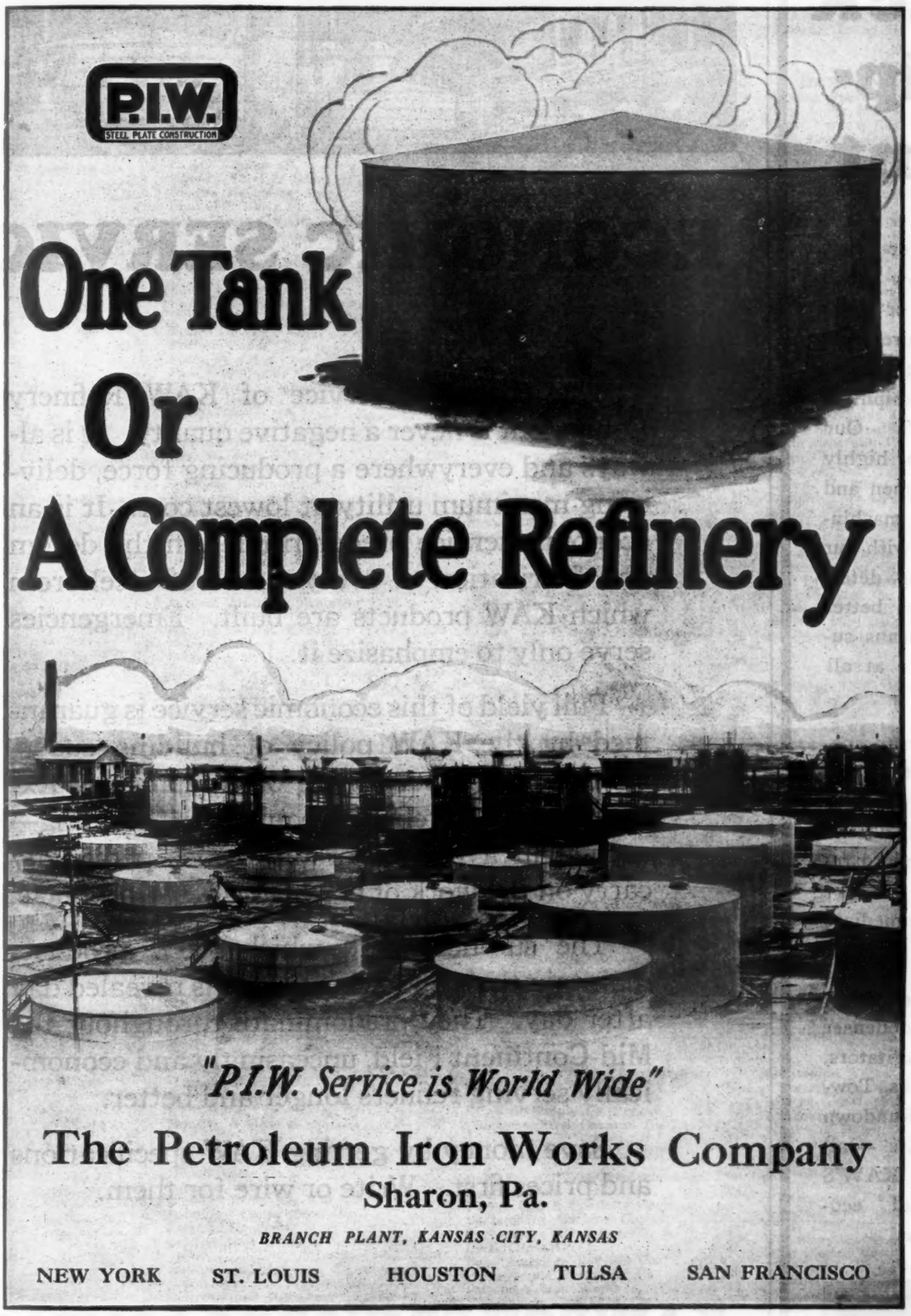
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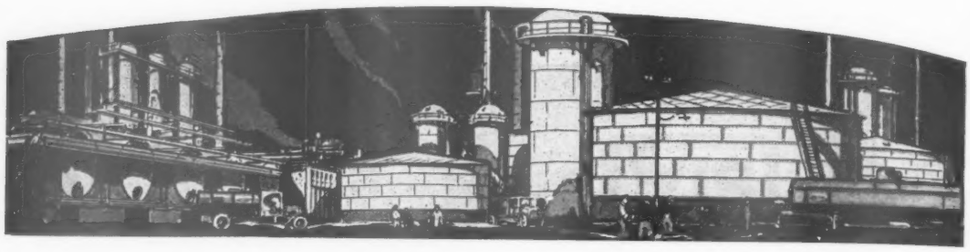

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